Industrial Technology: Timber

General wood: Core module #1

Industrial Technology: Timber aims to provide students in Year 9 with practical and theoretical experiences in the study of industry, materials, processes, technology, the effects it has on our society and how this can be applied in the classroom.

	Year 9: Semester #1	Year: 2005 Class: General wood #1	Week	Course (0–50 hrs) Notes
	Outcomes	**What students learn about. Term 1**		**Why have these units been developed? What happens in the units of work?**
OH&S	Refer to outcomes 5.1.1, 5.1.2, 5.4.2	• OH&S. • Safe use and handling of hand, power and machine tools. • Personal protective equipment.	**1**	• This unit is specific to the *Industrial Technology: Timber* syllabus. Each semester of work is equivalent to 50 hours of classroom experience. • Each core module has been developed to allow students to work sequentially to develop greater knowledge. • Students are required to produce a compact disc storage unit and a report using appropriate software and hardware for this project. • The unit starts with the unit OH&S and risk management. • Design is the first focus through the use of design principles and processes, workplace communication (industrial terminology, design, materials, sketches, workshop drawings and material list). • Students will then be introduced in the workshop to a series of basic hand tool exercises, workshop drawing interpretations, marking out and portable power tools and machines including the biscuit jointer and drills. • Techniques and processes are gradually introduced to continue the development of the project including dowel joint and biscuit joint. • Finally the students are introduced to finishing techniques and skills to enhance the appearance and/or function of practical projects. **What benefits are there for the students?** This unit will: • encourage students to learn through progressive and sequential modules to expand their knowledge and understanding of the timber industry • promote high levels of intellectual quality • provide a quality learning environment • generate significance by connecting students with the intellectual demands of their work. • provide students with the opportunity to investigate and apply problem solving. • encourage a sense of purpose, enjoyment, and personal satisfaction through the production of practical projects. • develop self sufficiency, resourcefulness, mature judgment and the capacity to work cooperatively and responsibly.
	Refer to outcomes 5.1.1, 5.1.2, 5.4.2	• Workplace signage. • Elementary first aid procedures. • Workshop safety. • Safety test.	**2**	
CD storage unit	Refer to outcomes 5.4.1, 5.5.1 Refer to outcomes 5.7.1, 5.7.2	• Industry terminology. • Procedure diary – factual recount. • Issues relating to the sustainability of resources in the timber industry.	**3**	
	Refer to outcomes 5.2.1, 5.5.1 Refer to outcomes 5.3.1, 5.3.2, 5.4.2	• Functional and aesthetic aspects of design. • Design principles and processes. • Materials: – grain, strength, defects, colour.	**4**	
	Refer to outcomes 5.2.1, 5.5.1, 5.6.1	• Material list. • Pictorial and working drawings. • Project costing.	**5**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Hand tools: marking out and cutting. • Hand tools: Holding devices and sawing. • Hand tools: Drilling and shaping. • Hand tools: Chiselling and planing.	**6**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Processes and techniques for preparing timber. • Measurement and sizing.	**7**	
Project report	Refer to outcomes 5.2.1, 5.5.1	**Project report review** • Pictorial and working drawings • Computer software applications: – *Word* and *Excel*. • Project costing. • Procedure diary – factual recount.	**8**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Processes and techniques for finishing timber. • Portable power tools: sanding.	**9**	
	Refer to outcomes 5.4.1, 5.5.1,	• Procedure diary – factual recount. • Report writing – evaluation.	**10**	

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	Year 9: Semester #1	**Year: 2005** **Class: General wood #1**	**Week**	**Course (0–50 hrs)** **Notes**
	Outcomes	**What students learn about.** **Term 2**		**Why have these units been developed?** **What happens in the units of work**
OH&S	Refer to outcomes 5.1.1, 5.1.2, 5.4.2	• Safe use and handling hand, power and machine tools. • Personal protective equipment. • Elementary first aid procedures.	**1**	• This unit is specific to the *Industrial Technology: Timber* syllabus. Each semester of work is equivalent to 50 hours of classroom experience. • Each core module has been developed to allow students to work sequentially to develop greater knowledge. • Students are required to produce a trinket box and a report using appropriate software and hardware for this project. • The unit starts with the unit OH&S and risk management. • Design is the first focus through the use of design principles and processes, workplace communication (industrial terminology, design, materials, sketches, workshop drawings and material list). • Students will then be introduced in the workshop to a series of basic hand tool exercises, workshop drawing interpretations, marking out and portable power tools and machines including the biscuit jointer and drills. • Techniques and processes are gradually introduced to continue the development of the project including dowel joint and biscuit joint. • Finally the students are introduced to finishing techniques and skills to enhance the appearance and/or function of practical projects. **What benefits are there for the students?** This unit will: • encourage students to learn through progressive and sequential modules to expand their knowledge and understanding of the timber industry • promote high levels of intellectual quality • provide a quality learning environment • generate significance by connecting students with the intellectual demands of their work. • provide students with the opportunity to investigate and apply problem solving. • encourage a sense of purpose, enjoyment, and personal satisfaction through the production of practical projects. • develop self sufficiency, resourcefulness, mature judgment and the capacity to work cooperatively and responsibly.
Trinket box	Refer to outcomes 5.4.1, 5.5.1 Refer to outcomes 5.3.1, 5.3.2, 5.5.1	• Industry terminology. • Procedure diary – factual recount. • The elements of the structure of trees and how a tree grows.	**2**	
	Refer to outcomes 5.2.1, 5.5.1,5.6.1 Refer to outcomes 5.7.2, 5.5.1	• Functional and aesthetic aspects of design. • Materials: – grain, strength, defects, colour. • Industrial processes and production techniques.	**3**	
	Refer to outcomes 5.4.1, 5.5.1	• Material list. • Pictorial and working drawings. • Project costing.	**4**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Measurement and sizing. • Processes and techniques for joining timber. • Half yearly exam. • Portable power tools: cutting. • Portable power tools: drilling.	**5**	
Project Report	Refer to outcomes 5.4.1, 5.5.1	**Project report review** • Pictorial and working drawings. • Computer software application: • Word and Excel • Project costing. • Procedure diary – factual recount.	**6**	
Trinket box	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Processes and techniques for finishing timber. • Portable power tools: sanding.	**7**	
	Additional content	• The structure and properties of hardwoods and softwoods.	**8**	
	Additional content	• A range of techniques and skills to enhance the appearance and/or function of practical projects.	**9**	
	Refer to outcomes 5.7.2, 5.5.1	• Procedure diary – factual recount. • Report writing – evaluation. • A range of career paths in the timber industry.	**10**	

Industrial Technology: Timber

General wood: Core module #2

Industrial Technology: Timber aims to provide students in Year 9 with practical and theoretical experiences in the study of industry, materials, processes, technology, the effects it has on our society and how this can be applied in the classroom.

	Year 9: Semester #2	**Year: 2005** **Class: General wood#2**	**Week**	**Course (50–100 hours)** **Notes**
	Outcomes	**What students learn about Term 3**		**Why have these units been developed? What happens in the units of work?**
OH&S	Refer to outcomes 5.1.1, 5.1.2, 5.4.2	• Risk management principles. • Hazards in the work environment. • Clean and hygienic work practices.	**1**	• This unit is specific to the *Industrial Technology: Timber* syllabus. Each semester of work is equivalent to 50 hours of classroom experience. • Each core module has been developed to allow students to work sequentially to develop greater knowledge. • Students are required to produce a *cheval mirror* and a report using appropriate software and hardware for this project. • The unit starts with the unit OH&S and risk management. • Design is the first focus through the use of design principles and processes, workplace communication (industrial terminology, design, materials, sketches, workshop drawings and material list). • Students will then be introduced in the workshop to a series of basic hand tool exercises, workshop drawing interpretations, marking out and portable power tools and machines including the biscuit jointer and drills. • Techniques and processes are gradually introduced to continue the development of the project including dowel joint and biscuit joint. • Finally the students are introduced to finishing techniques and skills to enhance the appearance and/or function of practical projects. **What benefits are there for the students?** This unit will: • encourage students to learn through progressive and sequential modules to expand their knowledge and understanding of the timber industry • promote high levels of intellectual quality • provide a quality learning environment • generate significance by connecting students with the intellectual demands of their work. • provide students with the opportunity to investigate and apply problem solving. • encourage a sense of purpose, enjoyment, and personal satisfaction through the production of practical projects. • develop self sufficiency, resourcefulness, mature judgment and the capacity to work cooperatively and responsibly.
Che val mirror	Refer to outcomes 5.4.1, 5.5.1, Refer to outcomes 5.2.1, 5.5.1,5.6.1	• Industry terminology. • Design principles and processes. • Factors affecting design: – material selection, shaping, joining, finishing.	**2**	
	Refer to outcomes 5.3.1, 5.3.2, 5.5.1 Refer to outcomes 5.4.1, 5.5.1,	• Suitability of timbers for specific purposes. • Procedure diary – factual recount.	**3**	
	Refer to outcomes 5.4.1, 5.5.1 Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Orthogonal drawing. • Material list. • Project costing. • Joining methods and techniques.	**4**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Wood turning.	**5**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Measurement and sizing.	**6**	
Project Report	Refer to outcomes 5.4.1, 5.5.1	• Project report review • Report writing. • Orthogonal drawing. • Computer software applications. • Procedure diary – factual recount.	**7**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• The care and use of a range of hand and power tools.	**8**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Power and machine tools for • sanding, drilling and turning.	**9**	
	Refer to outcomes 5.5.1, 5.7.2	• The relationship between careers and industries in the timber area.	**10**	

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	Year 9: Semester #2	Year: 2005 Class: General wood #2	Week	Course (50–100 hours) Notes
	Outcomes	**What students learn about Term 4**		**Why have these units been developed? What happens in the units of work?**
Cheval mirror	Refer to outcomes 5.3.1, 5.3.2, 5.5.1	• Timber seasoning and conversion.	**1**	• This unit is specific to the *Industrial Technology: Timber* syllabus. Each semester of work is equivalent to 50 hours of classroom experience. • Each core module has been developed to allow students to work sequentially to develop greater knowledge. • Students are required to produce a *cheval mirror* and a report using appropriate software and hardware for this project. • The unit starts with the unit OH&S and risk management. • Design is the first focus through the use of design principles and processes, workplace communication (industrial terminology, design, materials, sketches, workshop drawings and material list). • Students will then be introduced in the workshop to a series of basic hand tool exercises, workshop drawing interpretations, marking out and portable power tools and machines including the biscuit jointer and drills. • Techniques and processes are gradually introduced to continue the development of the project including dowel joint and biscuit joint. • Finally the students are introduced to finishing techniques and skills to enhance the appearance and/or function of practical projects. **What benefits are there for the students?** This unit will: • encourage students to learn through progressive and sequential modules to expand their knowledge and understanding of the timber industry • promote high levels of intellectual quality • provide a quality learning environment • generate significance by connecting students with the intellectual demands of their work. • provide students with the opportunity to investigate and apply problem solving. • encourage a sense of purpose, enjoyment, and personal satisfaction through the production of practical projects. • develop self sufficiency, resourcefulness, mature judgment and the capacity to work cooperatively and responsibly.
	Refer to outcomes 5.5.1, 5.7.2	• Industrial techniques and processes.	**2**	
	Refer to outcomes 5.3.1, 5.3.2, 5.5.1	• The properties and working characteristics of timber: – hardwoods and softwoods.	**3**	
	Refer to outcomes 5.7.1, 5.7.2	• The effects of the timber industry on society and the environment.	**4**	
	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Timber finishes and finishing. • Yearly exam.	**5**	
Project Report	Refer to outcomes 5.4.1, 5.5.1	**Project report review** • Report writing. • Orthogonal drawing. • Computer software applications. • Procedure diary – factual recount.	**6**	
Cheval mirror	Refer to outcomes 5.2.2, 5.4.2, 5.5.1	• Identify a range of timber finishes and their applications, including clear finishes, stains and paints.	**7**	
	Additional content	• Conversion and seasoning of timber.	**8**	
	Additional content	• A range of techniques and skills to enhance the appearance and/or function of practical projects.	**9**	
	Refer to outcomes 5.4.1, 5.5.1	• Procedure diary – factual recount. • Report writing – evaluation.	**10**	