



JOHN EDMONDSON HIGH SCHOOL

Assessment Notification

Faculty: Industrial Arts Course: Industrial Technology - TIMBER Year: 12

Assessment Task: Industry Study Industrial Processes - Task 2

Assessment Weighting: 30% Due: Term 2 Week 2 Date: 5/05/2023 by 8:20am
Submission via CANVAS

Task Type: Hand in Task In Class Task Practical Task

Outcomes assessed (NESA)

H1.1 investigates industry through the study of businesses in one focus area
H1.2 identifies appropriate equipment, production and manufacturing techniques and describes the impact of new and developing technologies in industry
H1.3 identifies important historical developments in the focus area industry
H3.2 selects and applies appropriate research and problem-solving skills
H5.1 selects and uses communication and information processing skills
H5.2 examines and applies appropriate documentation techniques to project management
H6.1 evaluates the characteristics of quality manufactured products
H7.1 explains the impact of the focus area industry on the social and physical environment
H7.2 analyses the impact of existing, new and emerging technologies of the focus industry on society and the environment

Task Description/Overview

Industry Study Industrial Processes – Task 2

Detailed Assessment Task Description

Submission MUST be uploaded to CANVAS by 8.20am

Assessment Criteria (refer to attached assessment documentation for more detail)

| Grade | Description | Mark Range |
|-----------------|---|------------|
| Outstanding (O) | The student has an extensive knowledge and understanding of the content and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the processes and skills and can apply these skills to new situations. | 90-100 |
| High (H) | The student has a thorough knowledge and understanding of the content and a high level of competence in the processes and skills. In addition, the student is able to apply this knowledge and these skills to most situations. | 80-89 |
| Sound (S) | The student has a sound knowledge and understanding of the content and has achieved a good level of competence in the processes and skills. | 60-79 |
| Basic (B) | The student has a basic knowledge and understanding of the content and has achieved a basic level of competence in the processes and skills. | 30-59 |
| Limited (L) | The student has an elementary knowledge and understanding in a few areas of the content and still required further work to achieve competence in the processes and skills. | 0-29 |

Satisfactory completion of courses

A course has been satisfactorily completed, when the student has:

- Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA)
- Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.
- Achieved some or all of the course outcomes

Year 12 Industrial Technology

Timber Products and Furniture Technologies

Industry Study Industrial Processes – **Task 2**

Due Date: Term 2, Week 2, Friday - (05/05/2023) by 8:20am

Submission **MUST** be uploaded to CANVAS as a PDF by 8.20am.

Assessment Outcomes

A student:

- H1.1 investigates industry through the study of businesses in one focus area
 - H1.2 identifies appropriate equipment, production and manufacturing techniques and describes the impact of new and developing technologies in industry
 - H1.3 identifies important historical developments in the focus area industry
 - H3.2 selects and applies appropriate research and problem-solving skills
 - H5.1 selects and uses communication and information processing skills
 - H5.2 examines and applies appropriate documentation techniques to project management
 - H6.1 evaluates the characteristics of quality manufactured products
 - H7.1 explains the impact of the focus area industry on the social and physical environment
 - H7.2 analyses the impact of existing, new and emerging technologies of the focus industry on society and the environment
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Assessment Components

- A. Industry Study – Written Component
 - B. Industrial Processes – Production Component
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Presentation

- Your folio is to be presented as an electronic **PDF** uploaded to **Canvas only**.
- Use a professional, easy to read font, such as Times New Roman or similar.
- Use the question numbers at the start of each response.

"Communication Techniques" are being considered as part of this assessment and as such it is important to present a professional, academic, response.

A. INDUSTRY STUDY – Written Component

Scenario:

IND-TEC is a large, Australian, furniture manufacturing company. IND-TEC employs 150 people and produces high quality timber furniture that is sold at a range of different, domestic, retail outlets.

Question 1

Explain how updating existing tools, machinery and equipment at *IND-TEC* may affect existing quality control processes. (250 words) 10 marks

Question 2

Analyse how technical factors and new technology affect production and efficiency at *IND-TEC*. (250 words) 10 marks

Question 3

Discuss strategies that *IND-TEC* could adopt to overcome employee resistance to the implementation of new and emerging technologies. (250 words) 10 marks

Question 4

With the introduction of new tools, equipment and machinery, describe environmental factors that *IND-TEC* need to consider and discuss strategies that *IND-TEC* could implement to minimise its continuing environmental impact. (500 words) 20 marks

B. INDUSTRIAL PROCESSES – Production Component

The application of appropriate industrial processes within the production of your project will be assessed in the following areas: 20 marks

Quality of Product

- Students should always aim to achieve a quality product which could be sold commercially.
- Quality should relate to all aspects of the design, planning, management, production and evaluation process.
- You are advised to use quality materials and it is very important to produce an excellent finish on your product - make sure that this is a planned step and not just an after thought.

Evidence of a Range of Skills

- Evidence of a range of technical skills which you used in your project.
- Techniques and skills you used to overcome problems which were encountered in the production of your project.
- Any hidden complexity of which the casual observer may otherwise not be aware.

Degree of Difficulty

- Evidence of a project which has a degree of difficulty appropriate to a Year 12 project. Every student should try to incorporate a state-of-the-art aspect into their project as well as traditional industrial processes and equipment.
- Appropriate choices regarding the processes and technologies you used for your project to other available processes & technologies and compare aspects such as time, quality, skills developed, and cost.

Links Between Planning and Production

- Production on project is aligned to the information described in the student's folio.

Evidence of Industrial Processes

- Evidence of parts of your project which have been done by processes (i.e. production methods) which are used in industry and completed to a professional standard.

Use of Appropriate Materials

- You have already justified the use of materials in the design section of your folio, this must be evident the production of your project.
 - Materials include:
 - the manufactured materials used to construct the project such as MDF, mild steel, plywood, glass, edging materials etc.
 - the finishes used such as paint, epoxy resins, polyurethane etc.
 - the materials used for prototypes, models, jigs etc.
 - upholstery materials

Use of Industrial Technologies

- Evidence of the parts of your project which have been done by the use of industrial technologies throughout the project.
- **This refers to the tools, machines and equipment used in industry - not industrial methods or processes listed above.**

Evidence of Solutions to Problems in Production

- Evidence of successful resolution to the problems which you solved during the design and production of the project. This can be done with reference to the ongoing evaluation as well as to the finished product.
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| INDUSTRY STUDY – Written Component | 10 - 9 | 8 - 7 | 6 - 5 | 4 - 3 | 2 - 0 | |
|--|---|---|--|---|---|------------|
| Question 1 | The student has an extensive knowledge and understanding of the Timber Products and Furniture Industry and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the communication of researched industrial processes and can successfully apply these within an extended response format. | The student has a thorough knowledge and understanding of the Timber Products and Furniture Industry and can readily apply this knowledge. In addition, the student has achieved competence in the communication of researched industrial processes and can apply these within an extended response format. | The student has a reasonable knowledge and understanding of the Timber Products and Furniture Industry and can, at times, apply this knowledge. In addition, the student has demonstrated elements of competence in the communication of researched industrial processes within an extended response format. | The student has a superficial knowledge and understanding of the Timber Products and Furniture Industry and found difficulty in applying this knowledge. In addition, the student has demonstrated difficulty in the communication of researched industrial processes within an extended response format. | The student has an elementary knowledge and understanding of the Timber Products and Furniture Industry. In addition, the student has not demonstrated the ability to communicate effectively in an extended response format. | /10 |
| Question 2 | | | | | | /10 |
| Question 3 | | | | | | /10 |
| | 20 - 17 | 16 - 13 | 12 - 9 | 8 - 5 | 4 - 0 | |
| Question 4 | The student has an extensive knowledge and understanding of the Timber Products and Furniture Industry and can readily apply this knowledge. In addition, the student has achieved a very high level of competence in the communication of researched industrial processes and can successfully apply these within an extended response format. | The student has a thorough knowledge and understanding of the Timber Products and Furniture Industry and can readily apply this knowledge. In addition, the student has achieved competence in the communication of researched industrial processes and can apply these within an extended response format. | The student has a reasonable knowledge and understanding of the Timber Products and Furniture Industry and can, at times, apply this knowledge. In addition, the student has demonstrated elements of competence in the communication of researched industrial processes within an extended response format. | The student has a superficial knowledge and understanding of the Timber Products and Furniture Industry and found difficulty in applying this knowledge. In addition, the student has demonstrated difficulty in the communication of researched industrial processes within an extended response format. | The student has an elementary knowledge and understanding of the Timber Products and Furniture Industry. In addition, the student has not demonstrated the ability to communicate effectively in an extended response format. | /20 |
| Production | 20 - 17 | 16 - 13 | 12 - 9 | 8 - 5 | 4 - 0 | |
| Quality of the Product | Demonstrates very high quality in all aspects of the major project production | Demonstrates high quality in most aspects of the major project production | Demonstrates substantial quality in most aspects of the major project production | Demonstrates basic quality in most aspects of the major project production | Demonstrates poor quality in all aspects of the major project production | |
| Evidence of a range of skills | Evidence of high quality in the application of a wide range of skills and techniques in the planning and production of the major project | Evidence of high quality in the application of most skills and techniques in the planning and production of the major project | Evidence of high but inconsistent quality in the application of skills and techniques in the planning and production of the major project | Evidence of basic quality in the application of skills and techniques in the planning and production of the major project | Minimal or no evidence of quality in the application of skills and techniques in the planning and development of the major project | |
| Degree of difficulty | A highly demanding project | A project of substantial difficulty | A project of moderate difficulty | A project of minimal difficulty | An undemanding project | |
| Links between planning and production | Completed project relates closely to what was intended. Close links between actual construction processes, management and thorough research and planning are evident and clearly articulated | Completed project relates to what was intended. Some links between actual construction processes, management and thorough research and planning are evident | Completed project relates loosely to what was intended. Minimal links between actual construction processes, management and thorough research & planning are evident | Links between planning and production are not clear | Links between planning and production are inappropriate or not evident | |
| Evidence of industrial processes | Competently applies and uses a wide range of appropriate industrial processes in the production of the major project | Competently applies and uses appropriate industrial processes in the production of the major project | Applies and uses some industrial processes in the production of the major project | Applies and uses a limited range of common industrial processes in the production of the major project | Applies basic processes in the production of the major project | |
| Use of appropriate materials | Competently applies and uses a wide range of appropriate materials in the production of the major project | Competently applies and uses appropriate materials in the production of the major project | Applies and uses a limited range of materials in the production of the major project | Applies and uses a limited range of common materials in the production of the major project | Makes inappropriate use of materials in the production of the major project | |
| Use of industrial Technologies | Uses a range of appropriate industrial technologies in the production of the major project | Uses some appropriate industrial technologies in the production of the major project | Uses some industrial technologies in the production of the major project | Uses some basic industrial technologies in the production of the major project | Uses a very limited range of basic technologies in the production of the major project | |
| Evidence of solutions to problems in production | Demonstrates and critically evaluates how solutions to problems in major project production were addressed | Demonstrates & explains how solutions to some problems in project production were addressed | Demonstrates solutions to some problems in major project production | Demonstrates partial solutions to some simple problems in major project production | Demonstrates inappropriate solutions to some simple problems in project production | /20 |
| Total: | | | | | | /70 |

John Edmondson
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VIRTUS ET INTEGRITAS