**Sample Assessment Outline**

Materials Design and Technology

General Year 11

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Sample assessment outline

Materials Design and Technology – General Year 11

Unit 1 and Unit 2

| **Assessment type and weighting** | **Assessment task weighting** | **When** | **Assessment task**  |
| --- | --- | --- | --- |
| Design25% | 7% | Semester 1Weeks 1–3 | **Task 1 Part A:** Students use a design process to design a product for their own use, using all or some recyclable materialsIntroduction to design process; investigate and devise through development of a design portfolio**Design fundamentals and skills*** Investigate, devise, evaluate
 |
| 5% | Semester 1Weeks 4–6 | **Task 1 Part B:** Devise a solutionStudents use a design process to prepare drawings, patterns or templates, and then develop a production plan to manufacture the product**Skills and techniques*** ICT, portfolio development and communication skills
* context appropriate drawings and relevant technical information to produce the final product to demonstrate
* workroom/studio terminology appropriate to context
* select appropriate materials and calculate the quantities of materials required to complete the project
 |
| 8% | Semester 2Weeks 1–4 | **Task 4 Part A:** Students use a design process to design a product using a combination of different materialsInvestigate different materials within context and/or from outside the designated context**Design fundamentals and skills*** investigate, devise, evaluate
 |
| 5% | Semester 2Weeks 5–7 | **Task 4 Part B:** Devise a solution**Skills and techniques*** ICT, portfolio development and communication skills
* develop context appropriate drawings and relevant technical information to produce the final product
* use workroom/studio terminology appropriate to context
* select appropriate materials and calculate the correct amount required to order and purchase materials to complete the project
* operate machinery and tools appropriate to context
 |

| **Assessment type and weighting** | **Assessment task weighting** | **When** | **Assessment task**  |
| --- | --- | --- | --- |
| Production60% | 5% | Semester 1Weeks 7–8 | **Task 2 Part A:** Students complete skills development task/s, as per context specific skills and techniquesSkills development exercises, prior to the production of the proposed productDaily work log/timesheet to record skills development |
| 25% | Semester 1Weeks 9–16 | **Task 2 Part B:** Students use safe production methods to produce the product. Document a daily work log/timesheet, including record of production with stage photos of production**Skills and techniques*** workroom/studio terminology appropriate to context
* select appropriate materials and calculate the quantities of materials required to complete the project
* with supervision, operate machinery and tools appropriate to context

**Safety*** correct use of personal protective equipment (PPE) where applicable
* demonstrate occupational safety and health (OSH) practices appropriate to tasks being undertaken in workshops

**Production management*** production plan
* ongoing evaluation techniques: diary, journal or portfolio notes and use of photography to record ongoing progress/decision changes made to the project
 |
| 30% | Semester 2Weeks 8–15/16 | **Task 6:** Manufacture of proposed productSafe production methods to produce the product. Document a daily work log/timesheet including record of production with stage photos of production**Skills and techniques*** use workroom/studio terminology appropriate to context
* select appropriate materials and calculate the correct amount required to order and purchase materials to complete the project
* operate machinery and tools appropriate to context

**Safety*** correct use of Personal Protective Equipment (PPE) where applicable
* conduct risk assessment for using specific tools/machinery
* demonstrate OSH practices appropriate to tasks being undertaken in workshops
* apply risk management strategies in the workshop/studio
* recognise need and purpose of Materials Safety Data (MSD) with regard to storage and handling of hazardous substances and hazardous operations appropriate to situation
 |
| Response15% | 5% | Semester 2Weeks 2–3 | **Nature and properties of materials – as per context** **Task 5:** Collect information and present a report on the nature and properties of materialsThis assignment requires students to gather and synthesise information about the physical differences on materials within context |
| 2% | Semester 1Week 17 | **Design fundamentals and skills**Evaluate**Task 1 Part C:** Evaluation of completed product; written report on, and photographs of completed product Evaluate finished product by responding to evaluation questions |
| 5% | Semester 1Weeks 2–3 | **Materials in context** –as per context **Task 3 Part A:** Investigate materialsStudy the nature and properties of materials as per context contentThis assignment requires students to list context specific materials, their characteristics and properties.**Task 3 Part B:** Materials use and environmental considerationsResearch and identify environmental considerations of the three ‘Rs’ – reduce, re-use and recycleThis assignment requires students to gather and synthesise information on the topic of: the environmental benefits of the three ‘Rs’ – reduce, re-use and recycle |
| 3% | Semester 2Week 17 | **Design fundamentals and skills**Evaluate**Task 4 Part C:** Evaluation of completed product; written report on and photographs of completed product Evaluate finished product by responding to evaluation questions |
| Total | 100% |  |