**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** |
| --- | --- | --- | --- |
| Design  25% | 7% | Semester 1  Weeks 1–3 | **Task 1 Part A:** Students use a design process to design a product for their own use, using all or some recyclable materials  Introduction to design process; investigate and devise through development of a design portfolio  **Design fundamentals and skills**   * Investigate, devise, evaluate |
| 5% | Semester 1  Weeks 4–6 | **Task 1 Part B:** Devise a solution  Students 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 2  Weeks 1–4 | **Task 4 Part A:** Students use a design process to design a product using a combination of different materials  Investigate different materials within context and/or from outside the designated context  **Design fundamentals and skills**   * investigate, devise, evaluate |
| 5% | Semester 2  Weeks 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** |
| --- | --- | --- | --- |
| Production  60% | 5% | Semester 1  Weeks 7–8 | **Task 2 Part A:** Students complete skills development task/s, as per context specific skills and techniques  Skills development exercises, prior to the production of the proposed product  Daily work log/timesheet to record skills development |
| 25% | Semester 1  Weeks 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 2  Weeks 8–15/16 | **Task 6:** Manufacture of proposed product  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**   * 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 |
| Response  15% | 5% | Semester 2  Weeks 2–3 | **Nature and properties of materials – as per context**  **Task 5:** Collect information and present a report on the nature and properties of materials  This assignment requires students to gather and synthesise information about the physical differences on materials within context |
| 2% | Semester 1  Week 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 1  Weeks 2–3 | **Materials in context** –as per context  **Task 3 Part A:** Investigate materials  Study the nature and properties of materials as per context content  This assignment requires students to list context specific materials, their characteristics and properties.  **Task 3 Part B:** Materials use and environmental considerations  Research and identify environmental considerations of the three ‘Rs’ – reduce, re-use and recycle  This 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 2  Week 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% |  | |