

St Margaret's College
MATERIALS TECHNOLOGY – YEAR 11

Course Description:

This course provides students with an opportunity to learn about design elements related to fashion and to research influential fashion designers. Students will develop a pattern and learn a range of garment construction techniques in order to develop a skirt to suit their needs. They will also research what Shelters are and develop a prototype shelter.

Course Duration:

Full year (4 x 55 minutes per week)

Curriculum Level(s): 6

Unit Title: Materials technology 1 – Fashion (half year)

Learning outcomes	Learning Sequence	Resources	Links to Indicators of Progression	Links to Achievement standards
<p>Students will:</p> <ul style="list-style-type: none"> • Use planning tools to develop an initial plan for the project • Research design elements and apply the information to fashion. 	<p>Brainstorm the stages in developing a technological outcome. Discuss why it is important to develop planning tools to manage a project. Explain how to use planning tools to record initial and ongoing planning decisions</p> <p>Explain what design principles are and discuss how design principles have been used in fashion by showing examples. Students then research design elements further. Explain the format of a report on how they can demonstrate their understanding of design elements (evidence for AS)</p>	<p>Fashion Design by Sue Jenkyn Jones</p>	<p>Technological Practice: Planning for practice (level 6)</p> <p>Technological Practice: Outcome Development and Evaluation (Level 6) Knowledge of Design Practice (Level 6)</p>	<p>AS91053 Generic technology 1.10 External (Demonstrate understanding of design elements)</p>

<ul style="list-style-type: none"> • Explore existing garments and critically analyse, using design language. • Research influential fashion designers and analyse their garments using design language. • Develop a brief – establish a conceptual statement and specifications • Generate conceptual design sketches (informed by research of designers) that effectively communicate the specific design features of their garments. • Develop a pattern from skirt blocks 	<p>Investigate existing garment designs by looking at a label or a designer or a blog. Show the students a variety of fashion blogs. Students brainstorm fashion designers and select one to investigate in depth.</p> <p>Students use their prior knowledge to develop a brief after discussing needs and opportunities, considering the environment and stakeholder feedback.</p> <p>Develop concepts – generate several possible design ideas informed by research, evaluate against specs with regard to being fit for purpose. Notes must include the design elements incorporated in the concept. Influences from the fashion designer’s garments must be discussed. Concepts are further developed to a final design.</p> <p>Review patternmaking techniques taught in the previous year. Explain how patterns can be developed from a variety of sources –e.g commercial patterns, internet patterns, blocks, existing garments. Students develop their own patterns.</p>	<p>Fashion magazines Internet Fashion blogs Fashion NZ Retail outlets</p> <p>Butterick 5488 (pattern envelope and guide sheet). Skirt blocks, Existing skirts. Patternmaking equipment, cardboard, newsprint</p>	<p>Technological practice: Brief Development (Level 6)</p> <p>Technological Practice: Outcome Development and Evaluation (Level 6) Knowledge of Design Practice (Level 6)</p> <p>Pattern adaptation – level 6</p>	<p>AS91067 DVC 1.34 Internal (Use the work of an influential designer to inform design ideas)</p> <p>AS91096 Construction 1.26 Internal (Make basic adaptations to a pattern to enable a design to fit a person or item)</p>
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<ul style="list-style-type: none"> • Test design ideas through functional modelling by constructing a toile • Understand the basic construction techniques used to make a garment • Evaluate the outcome against the specifications of the brief to determine the outcome's potential fitness for purpose. 	<p>Construct functional model (toile) trial a variety of techniques e.g pocket construction and decide which is the most feasible. Construct a toile of the complete garment and explain how to test for fit. Students make modifications if needed and record these using photos and notes.</p> <p>Discuss suitable fabrics and their performance criteria</p> <p>Students construct their final garment reflecting on their toile evaluation. They record the construction process using a commercial pattern guidesheet as a starter. Explain the use of annotated photos. Students record appropriate codes of practice.</p> <p>Evaluate against specifications as to the fitness for purpose of the garment/s and how it addresses the brief.</p>	<p>Calico or knit fabric (depending on the design)</p> <p>Students purchase own fabric</p>	<p>Technological Practice: Outcome Development and Evaluation (Level 6)</p>	
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Unit Title: Materials technology 2 – Shelter (half year)

Learning outcomes	Learning Sequence	Resources	Links to Indicators of Progression	Links to Achievement standards
<p>Students will:</p> <ul style="list-style-type: none"> • Use planning tools to develop an initial plan for the project • Identify a need or opportunity from the context (Shelter) • Explore existing solutions • Establish a conceptual statement and specifications • Understand how materials are selected based on desired performance criteria 	<p>The students use their prior knowledge to develop planning tools to manage their project. They record initial and ongoing planning decisions.</p> <p>Brainstorm what shelter is, research definitions. Students create their own definition of Shelter i.e. to protect</p> <p>Brainstorm possible clients and identify a need. Carry out a feasibility study to analyse the suitability of the client and the outcome. Students make a selection and justify.</p> <p>Investigate existing solutions</p> <p>Students use their prior knowledge to develop an initial brief</p> <p>Students carry out a series of activities to test the performance criteria of a selection of fabrics e.g breathability, waterproofing, pilling, durability, launderability. The students record the results in their portfolio.</p> <p>Explain the format of the report on how</p>	<p>Internet</p> <p>Internet</p> <p>Variety of fabrics, testing equipment e.g thermometers, clear tube for waterproof test, boiling water for breathability,</p>	<p>Technological Practice: Planning for practice (level 6)</p> <p>Technological Practice: Brief Development (Level 6)</p> <p>Technological Practice: Outcome Development and Evaluation (Level 6)</p> <p>Technological Practice: Brief Development (Level 6)</p> <p>Technological Knowledge: Technological Products (Level 6)</p>	<p>AS91047 (Technology 1.4) Undertake development to make a prototype to address a brief</p> <p>AS91049 (Tech 1.6) Demonstrate understanding of how materials enable technological products to function.</p>

<ul style="list-style-type: none"> • Generate conceptual design sketches that effectively communicate the specific design features of their garments. • Develop a pattern • Test design ideas through functional modelling. 	<p>the students can demonstrate their understanding of how materials enable products to function (evidence for AS 91049)</p> <p>Develop concepts – generate several possible design ideas informed by research, evaluate these ideas against specifications with regard to being fit for purpose. Notes must include the knowledge gained from previous materials testing.</p> <p>Concepts are further developed to a final design.</p> <p>Explain how patterns can be developed from a variety of sources –e.g commercial patterns, internet patterns, existing outcomes. Students develop their own patterns.</p> <p>Construct a range of functional models to test the use of suitable techniques, tools and equipment e.g scissors, rotary cutter and a hot knife to test the most suitable technique to use for cutting material. Students record these using photos and notes. Students need to be made aware of the opportunities that</p>	<p>matches for burn test and a stand and matches for the flammability test</p> <p>Internet, commercial patterns, patternmaking equipment, cardboard, newsprint</p> <p>Materials for testing ideas</p>	<p>Technological Practice: Outcome Development and Evaluation (Level 6)</p> <p>Technological Knowledge: Technological Products (Level 6)</p>	
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<p>Establish final specifications reflecting the environment the outcome will be situated</p> <ul style="list-style-type: none"> Evaluate the outcome against the specifications of the brief to determine the outcome's potential fitness for purpose. 	<p>arise in order to test, select and justify their use of tools and equipment.</p> <p>Students select suitable materials for their final outcome, reflecting on their previous tests (materials performance criteria)</p> <p>Students modify their initial brief and write a final conceptual statement and specifications.</p> <p>Students develop their design through to a final outcome</p> <p>Evaluate final outcome against specifications as to the fitness for purpose of the outcome and how it addresses the client's need.</p>	<p>Students purchase own materials</p>	<p>Technological Practice: Brief Development (Level 6)</p> <p>Technological Practice: Outcome Development and Evaluation (Level 6)</p>	<p>AS91047 (Technology 1.4) Undertake development to make a prototype to address a brief</p>
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