Materials Design and Technology

General course

Externally set task

Sample 2016

Note: This Externally set task sample is based on the following content from Unit 3 of the General Year 12 syllabus.

**Design**

**Design fundamentals and skills**

* devise:
* using communication and documentation techniques
* sketching and drawing
* rendering
* annotating
* understanding the use of the elements and principles of design where applicable in context

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| --- | --- |
| * line
 | * contrast
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| * shape
 | * proportion
 |
| * form
 | * balance
 |
| * texture
 | * colour
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* rapid concept development techniques to generate design ideas and concepts
* final design concept, using design brief and performance criteria
* review of best idea using design brief and performance criteria
* design solution
* developing best concept using annotated hand or computer generated graphics (front, back views and detailed sketches as necessary)
* 2D illustrations (working/technical drawings)
* 3D illustration (presentation drawings)
* inspiration/concept/storyboard
* production plans
* materials list
* time line for stages of production

**Use of technology**

**Skills and techniques**

* context appropriate drawing and relevant technical information to produce the final product to demonstrate:
* sketching rapid concept developments
* 3D presentation drawings
* rendering techniques

In future years, this information will be provided late in Term 3 of the year prior to the conduct of the Externally set task. This will enable teachers to tailor their teaching and learning program to ensure that the content is delivered prior to the students undertaking the task in Term 2 of Year 12.

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Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course.

# Materials Design and Technology

## Externally set task

Working time for the task: 60 minutes

Total marks: 30 marks

Weighting: 15% of the school mark

1. Think of a project you have designed and produced. Outline your design problem or situation by writing a statement of intent identifying the design considerations and requirements. **(4 marks)**

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1. Produce a series of annotated concept sketches, graphical displays, or drawn diagrams to demonstrate the development of design ideas and concepts around design fundamentals. Devise and propose an appropriate solution to your design problem or situation. **(10 marks)**

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3. Using standard drawing conventions, prepare sketched presentation drawing/s of the proposed design solution. **(6 marks)**

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4. Present a list of materials you would use in the production of the product. **(4 marks)**

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| --- | --- | --- | --- |
| **Part Name** | **Material** | **Size** | **Number required** |
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5. Outline a production plan, estimating the time required for each stage to complete the production. **(6 marks)**

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