

Unit 1 Student Information

Read through all this information before you start your work.

You have a choice of 2 contexts to work within on this unit. They are:

Leisure Time

Personal Transport

Evidence for assessment will be produced during the **8** weeks that you are studying this unit of work.

Other standards to be assessed within your technological practice are: **2.7 Manipulation of materials.**

You will need to identify an authentic issue that is appropriate for you to explore within the given contexts.

You will need to **identify key factors** that need to be considered to resolve your identified issue, including stakeholders who are directly or indirectly affected by the issue, the resources you have available to develop and model your conceptual design; the environment/location that your conceptual design (should it be developed into a completed solution) is likely to be placed in. The **priorities of the key factors may alter** as your technological practice evolves.

You must provide **evidence of planning** to undertake technological practice. This needs to be recorded using tools that assist you to organise your next steps. **All key decisions must be recorded. As your conceptual design develops, interactions with stakeholders must be shown along with all key considerations that you deliberate over to develop and model a design** that demonstrates potential 'fitness for purpose' for resolving the identified issue.

The assessment schedule provides the details of the evidence required to achieve, to achieve with merit and to achieve with excellence.

The evidence that you will hand in to your teacher for assessment will be in portfolio format. This portfolio will need to contain a student work book, computer drawings.

Hand in all evidence produced during your practice.

The final date to hand in your work will be **the last day of week 10 term 1.**

Assessment Schedule:

The student identifies an issue to be resolved.

The student presents evidence that identifies the key factors relating to the identified issue. These factors include:

- those key factors associated with the identified issue (for example, the views, attitudes, needs, desires of the key stakeholder(s) to the issue etc);
- those associated with the issue that will arise from the location where the technological practice is to be undertaken and the conceptual design is modelled (e.g. *applicable legislation and codes of practice, political, social and cultural environments that may impact on the conceptual design and stakeholder(s) expectations for this; economic constraints*).
- those associated with resources required to undertake technological practice that will directly impact on the development and modelling of the conceptual design (e.g. access to key and other stakeholders to determine their needs/desires, time available, access to expertise and materials to develop skills and understandings);

The interactions and implications of the key factors are explored and explained.

An initial brief is formulated including a conceptual statement that clearly outlines the identified issue and defines the need(s)/opportunity(ies) that will be resolved/realised by the conceptual design. The initial specifications show clear links between the key factors and their interactions, and the need(s)/opportunity(ies) being resolved.

The brief is refined as new understandings emerge from ongoing consultation with stakeholders, analysis of research findings and testing of key ideas. Key factors are reviewed and where necessary their order of priority is changed and/or new ones are added and/or old ones deleted. Resulting changes to the brief are reflected in the planning documentation

Achievement	Achievement with Merit	Achievement with Excellence
<p>Key factors are identified from sources including those associated with the key and other stakeholder(s).</p> <p>Main implications for resolving the identified issue are determined such as access to stakeholder(s) to determine their needs/desires, and access to resources.</p> <p>The brief addresses the issue and the specifications reflect the identified key factors.</p>	<p><i>As for Achievement</i>, but the key factors are prioritised and implications that relate to the identified key factors are explained, including any interactions between the key factors. Key factors identified from ongoing technological practice are evaluated for their inclusion and prioritised against existing key factors.</p> <p>The brief reflects the prioritised key factors through a conceptual statement and specifications.</p> <p>The brief is reviewed before the final conceptual design is completed, and any changes are explained.</p>	<p><i>As for Merit.</i></p>

The student presents evidence of planning that demonstrates effective management of the technological practice they undertake to develop and model their conceptual design.

The initial planning structures what has to be done into manageable stages and provides a timeline inclusive of key milestone dates, and an overview of the known key actions and resources required to clarify the identified issue.

As key factors are considered in the initial brief development work, planning documentation provides further detail of the actions to be taken and resources required to support the technological practice, in keeping with the developing brief requirements. Planning changes are made as new resources are identified, Planning, and subsequent changes to this, should be explained and justified as a critical part of the technological practice being undertaken.

Refinement of planning should be based on ongoing evaluation of the progress towards the development and modelling of conceptual design that meets the brief. A critical part of resource management that should be reflected in all planning, is evaluating key stakeholder(s) feedback, and developing understandings and skills that will influence future developments towards modelling the conceptual design.

Planning should effectively guide technological practice, but flexible enough not to constrain it as new understandings, skills and key factors are established and prioritised.

Achievement	Achievement with Merit	Achievement with Excellence
<p>An initial plan has been developed with stages identified and structured. Time has been allocated to the stages showing how the conceptual design is developed and modelled by the due date.</p> <p>Resources required to meet the key milestones are allocated and prioritised throughout practice.</p> <p>Planning has been used to guide development work to enable the conceptual design to be modelled and evaluated.</p>	<p><i>As for Achievement</i>, but planning has been regularly reviewed and revised to monitor progress and aid the development work.</p>	<p><i>As for Merit</i>, but there is evidence that the revision of plans effectively pre-empts anticipated and/or overcomes actual problems and/or maximises opportunities presented.</p>

The student presents evidence of all work undertaken to demonstrate through modelling, the potential of the conceptual design to fulfil the requirements of the brief. This includes evidence of testing using such things as *stakeholder surveys, trials to determine the suitability of materials/joining methods, mockups, etc.* Findings from ongoing evaluations should be analysed and any decisions made and/or subsequent changes/additions to the developing conceptual design should be justified as appropriate.

The student presents evidence of testing the model(s) of their conceptual design and evaluating its 'fitness for purpose' against the final specifications of the brief. This evidence demonstrates how the concerns/needs of the key stakeholder(s) to the identified issue have been addressed.

The technological practice undertaken to demonstrate that the modelled conceptual design is 'fit for purpose' is both supported by and reflected in the students planning documentation.

Achievement	Achievement with Merit	Achievement with Excellence
<p>The development of the conceptual design is supported by ongoing research and modelling of design ideas.</p> <p>The final conceptual design has been modelled to communicate its fitness for purpose to the key stakeholder(s). Justifications are presented that explain the fitness for purpose of the conceptual design using evidence obtained from testing the developed model.</p> <p>Feedback evidence from the key stakeholder(s) is included in the justification.</p>	<p><i>As for Achieved</i>, but the conceptual design has been effectively modelled in a way that clearly demonstrates that it meets the specifications of the brief.</p> <p>Feedback evidence from the key stakeholder(s), is also provided that supports that the model has effectively communicated the fitness for purpose of the conceptual design.</p>	<p><i>As for Merit</i>, but the viability of the conceptual design being realised as a potential outcome is justified.</p>