

Assessment Schedule: Technology/3/1 – Virtual Pet
Develop a conceptual design to address a client issue

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

- those associated with the client (*e.g., their perspectives, attitudes, needs, desires etc*);
- 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 client and other stakeholders to determine their needs/desires, time available, access to expertise and materials to develop skills and understandings*);
- those associated with the issue that will arise from the wider social and physical 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 the client's expectations for this; economic constraints*).

The interactions and implications of the identified key factors are explored and explained in order to justify their prioritisation and the impact of these on planning, as well as on the conceptual design itself.

An initial brief is formulated that clearly outlines the client issue and defines the needs and opportunities that will be addressed by the conceptual design. The initial specifications show clear links between the prioritised key factors and their interactions, and the needs and opportunities being resolved.

As new key factors arise, these should also be explained to justify any inclusion of new, or exclusion of old key factors, and any reprioritisation. Refinements are made to the brief throughout the technological practice undertaken to develop and model the conceptual design, taking into consideration ongoing client feedback and any reprioritisation of key factors as it occurs. The technological practice undertaken to develop the brief is reflected in the planning documentation.

Achievement	Achievement with Merit	Achievement with Excellence
<p>Key factors are identified from sources including those associated with the client and other stakeholders.</p> <p>Main implications for resolving the client issue are identified, such as access to client and other stakeholders 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 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 revised before the final conceptual design is completed, and any changes are explained.</p>	<p><i>As for Merit</i>, but the prioritisations of key factors and revisions to the brief are justified in relation to the implications and interactions identified, and the findings associated with ongoing practice (<i>e.g. results of mock-ups, trailing, experimentation, research etc</i>).</p>

The student presents evidence of planning for practice that demonstrates effective management of their technological practice. Planning tools are developed, selected and used to allow for ongoing structuring of technological practice, including intended actions, resources and key milestones. _

The initial planning structures technological practice into manageable stages and provides key milestone dates and an overview of key actions and resources required. Needs and opportunities arising from the issue are explored for further development.

Planning, and subsequent changes to this, should be reviewed, explained and justified as part of the technological practice being undertaken.

Changes to technological practice should reflect client and other key stakeholder feedback and developing technological knowledge, skills and understanding of the nature of technology.

Project management tools should effectively guide technological practice, but be flexible enough not to constrain it.

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. 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 and model to be completed 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 the use of modelling in the development of the conceptual design to meet the requirements of the brief. This includes justification for the selection of evaluative tools used for such practices as *client surveying, testing of materials, using mock-ups to test performance, sensory testing of conceptual ideas etc.* Ongoing evaluations presented analyse and justify decisions made and subsequent changes to the conceptual design.

Resources are selected from those that are readily available through the school, as well as those accessed from wider sources such as: home, catalogues, shops, internet and experts in the community. The identification and accessing of resources should be clearly reflected in the students' planning documentation, and sources should be acknowledged.

Ongoing research, experimentation, and testing of the developing concept should inform the development of the conceptual design that is finally modelled.

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<p>The development of the conceptual design is supported by ongoing research and modelling of design ideas.</p> <p>Relevant resources from a range of sources are selected and used in the development of the conceptual design</p> <p>Sources are identified.</p>	<p><i>As for Achievement</i>, but research and modelling resources are investigated and selected for their ability to inform the development of the conceptual design and to communicate the final conceptual design.</p> <p>There is evidence of ongoing evaluation of the contribution of key resources in meeting the brief specifications in the development of the conceptual design.</p> <p>Sources are acknowledged.</p>	<p><i>As for Merit</i>, but the sources include all those that can reasonably be expected to be accessed to provide in-depth background information and materials to support the development of the conceptual design.</p> <p>Sources are acknowledged in keeping with applicable codes of practice.</p>

The student communicates the fitness for purpose and function of the conceptual design using modelling media. The model of the conceptual design should reflect the requirements of the specifications in the final brief. Modelling techniques used to communicate to the client may be different to those required for other stakeholders and the wider community. Appropriateness to the audience of modelling techniques should therefore be a part of the technological practice undertaken.

Justifications are part of an evaluative report that explains the fitness for purpose and function of the conceptual design against the final brief and clearly demonstrates how the client issue has been addressed. This report explains, using supporting evidence from the presentation of the model, how the conceptual design addresses the needs of the client, and stakeholders. The report also addresses current and projected future issues related to the social and physical environment in which the conceptual design may later be positioned if developed through to a solution in the future.

The technological practice undertaken to model and demonstrate the fitness for purpose of the conceptual design is reflected in the students planning documentation.

Achievement	Achievement with Merit	Achievement with Excellence
<p>The conceptual design has been modelled to communicate its fitness for purpose to the client and other identified key stakeholders.</p> <p>An evaluative report is presented that explains the fitness of purpose of the conceptual design using direct evidence from the model developed.</p> <p>Feedback evidence from the client and other key stakeholders is included in the evaluation.</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 client, other key stakeholders is also provided in the evaluative report 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 evaluative report outlines possible future development work and justifies the priorities underpinning the suggested next steps.</p>