Assessment Schedule – 2011

Technology: Demonstrate understanding of how technological modelling supports decision-making (91048)

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria.

Issues from the Specifications

Authentic candidate submissions will be recognisable because of specific contexts associated with the work. This does not imply that submissions will arise only from the candidate's practice. However, where the candidate's practice does not provide the immediate source of a specific context, one would expect to see that several sources of information relating to modelling had been applied within a specific context. In both cases, the marker will be able to detect the candidate's voice. In situations where information does not have some aspect of student voice, it is difficult to establish whether the candidate has actually demonstrated understanding or simply identified information.

Candidates who have simply identified information by reproducing information from sources without making use of that information have not demonstrated understanding.

Where a candidate has provided a brief answer, the answer should not be penalised because of length.

Candidate work in excess of 14 pages should not be marked.

Where work is illegible, it cannot be marked.

Digital submissions that cannot be read cannot be marked.

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
Does not demonstrate understanding of how technological modelling supports decision-making	Demonstrates understanding of how technological modelling supports decision-making	Demonstrates in-depth understanding of how technological modelling supports decision-making	Demonstrates comprehensive understanding of how technological modelling supports decision-making
Evidence that supports the Not Achieved judgement	**Evidence that supports the Achievement judgement**	**Evidence that supports the Achievement with Merit judgement**	**Evidence that supports the Achievement with Excellence judgement**

Candidates who have simply identified information have not demonstrated understanding **The candidate does not** **Identify**: the technological modelling undertaken to develop and trial a technological outcome **Refer to Exemplar 1** References to 'Testing and checks' are not enough to identify modelling processes. The modelling must be identified in the context of the process of gathering evidence for a purpose. The evidence gathered from the modelling must relate to the outcomes fit to the purpose. Testing becomes modelling only as part of the overall process. **Identify**: the evidence gained from the modelling. **Refer to Exemplar 1** The evidence gained must have some substance, some minimal quantitative or qualitative aspect. How many hammers? How many tools? How much congestion? How many were expected to fit? **Describe:** How the evidence gained informed decisions about 'what could happen' and 'what should happen' for the technological outcome. **Refer to Exemplar 2** The candidate's use of evidence is	**The candidate:** • identifies the technological modelling undertaken to develop and trial a technological outcome • identifies the evidence gained from the modelling • describes how the evidence gained informed decisions about 'what could happen' and 'what should happen' for the technological outcome. **Refer to Exemplar 3, pages 3 and 6** The modelling evidence gained and the decisions are all on a very basic level. The use of stakeholder feedback evidence and patterning with the wings allows the candidate to describe the technological modelling, describe the evidence gained, and describe how the evidence gained informed decisions. The modelling, evidence gained, and the decisions are all on a very basic level. This defines the absolute bottom boundary in 2011. **Refer to Exemplar 4** The candidate does have a basic idea about modelling in that the candidate has set out to test the basic fitness of the design to the specified purpose. The candidate uses drawings and a mock-up to test and develop the design. **Refer to Exemplar 4, page 3** *Now I have drawn development that I have decided from the concept, this makes me know the measurement of the stool that I am going to make. Now I am*	**The candidate explains:** • the purpose of the technological modelling undertaken to develop and trial a technological outcome • why the evidence gained enabled decisions to be made about 'what could happen' and 'what should happen' for the technological outcome. **Refer to Exemplar 5** M-Over-A Boundary: • understands the purpose of tech modelling • uses this information to test design ideas over a range of projects • explains how modelling supports the use of resources • risks are identified and avoided through modelling • has the 'why' and 'so what' without necessarily demonstrating understanding of the *how* of decision making. This might reflect a formula applied in to a series of modelling processes. Specific decisions made as a result of modelling **are** described. and the relationship between the evidence and the decision is apparent. What is **not apparent** is that the candidate clearly focuses upon	**The candidate discusses:** • how decisions made about a technological outcome considered 'what could happen' and 'what should happen' • how technological modelling identifies risk to support decision making. **Refer to Exemplar 6**

almost non-existent. The candidate makes a claim about adapting recipes but provides no evidence of these changes or the research that caused the changes. The candidate has produced a set of non-specific descriptions of practice without relating these to the context of the actual development.	*going to make a mock-up of my stool, this makes me … what my stool is going to look like.* This is basic identification, basic evidence, and basic use of evidence within the development of the outcome **Exemplar 4, page 3** absolute minimum identification of modelling and evidence absolute minimum use of the evidence to make decisions In both Achievement exemplars, candidates have recounted a large amount of practice from which you could infer a very basic understanding of modelling. This inference is possible only because **the candidate finally identifies modelling practices and the resulting evidence and describes its use**. Unless the candidate crosses this threshold, no inference as to understanding can be made.	modelling for risks, should-decisions and could-decisions within an organised program of development towards a prototype.	
Technological modelling refers to both functional modelling and prototyping.			