

Achievement Standard

Subject Reference	Information and Communication Technology 2.6		
Title	Examine technological knowledge in information and communication technology practice		
Level	2	Credits	4
		Assessment	External
Subfield	Technology		
Domain	Technology – General Education		
Registration date	18 January 2005	Date version published	18 January 2005

This achievement standard involves examining technological knowledge underpinning the development of an information and communication technology outcome through identifying the knowledge and explaining how this knowledge informs one’s own technological practice.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> • Identify the technological knowledge that underpins the development of an information and communication technology outcome. • Explain how this knowledge informs own technological practice in addressing an identified issue(s). <p>(evidence student understands: Gathering: Define, Identify and Describe)</p>	<ul style="list-style-type: none"> • Explain the technological knowledge that underpins the development of an information and communication technology outcome. • Explain how this knowledge informs own technological practice in addressing an identified issue(s). <p>(evidence student understands: Gathering and Processing: Interpret, Explain, Compare, Contrast)</p>	<ul style="list-style-type: none"> • Discuss the technological knowledge that underpins the development of information and communication technology outcomes. • Discuss how this knowledge informs own technological practice in addressing an identified issue(s). <p>(evidence student understands: Gathering, Processing and Applying: Justify, Predict, Evaluate Compare, Contrast)</p>

Explanatory Notes

- 1 *Information and communication technology outcome* refers to **that of a person or organisation other than the student.**
- 2 The *issue* needs to be identified by the student from a teacher-given context. The issue may be personal to the student, or one owned by others. This issue will generate a range of needs or opportunities for technological practice.
- 3 Terms
***Explain* means describe in detail.**
***Discuss* means compare and contrast.**
- 4 Technological outcome refers to that of a person or organisation **other than the student**
- 5 Technological knowledge that underpins the development of a technological outcome includes:
 - **The key resources** that have been used in the development of the technological outcome including such things as people (stakeholders) time, components, materials and/or techniques
 - **How and why these key resources** have been used in the development of the technological outcome
 - **Technological principles** that have been used in the **development** of the outcome and
 - **How** the key resources and principles **combine** to enable the technological outcome/s to **function to meet its specifications**

Evidence **should show how the knowledge** of another technologist's outcome has **influenced their decisions**

**Candidates who achieved this standard most commonly demonstrated the following skills and/or knowledge:**

- Identified technological knowledge that is key and applied in the development of at least one technological outcome
- Were able to explain how this knowledge had been applied in the development of their own technological outcomes

- Identified knowledge using a variety of techniques including exploring and deconstruction existing products or established technological practice
- Considered knowledge including key resources and technological principles and how and why they were critical in the development of the outcome

Candidates who achieved with Merit or Excellence most commonly demonstrated the following skills and/or knowledge:

- Presented more detailed explanations across a range of knowledge, which was shown to be key the development of their own technological outcome
- Presented a discussion related to at least **two technological outcomes**. In discussing the range of key knowledge identified, the influence of this knowledge on the quality of their own outcomes was considered.

Technologist's Visit - Questions to ask:

About Image –Digital imaging.

Introduction:

What is the name of the business the technologist works for?

Who is their client?

What was the brief? What did the client want them to create?

What were the specifications?

What research did they do? (surveys, questionnaires etc.)

What/who were the target audience?

Outline The key resources that have been used in the development of the technological outcome including such things as:

- people - who were your wider stakeholders?
- Testing of conceptual designs – who did you use to test these? Why?
- Use of time – what project management tools did you use?
- What components or tools did they use to develop the outcome
- What materials and/or techniques have they applied
- Did they out source? Why/why not?
- How did they make these decisions? Did they have a board meeting – what was the decision making process?
- How did they cover copyright and privacy laws?
- What codes of practice did they have to follow to produce the outcome?
- What quality control techniques did they use to ensure they had a high quality output?

Explain How and why these key resources were used in the development of the outcome

Explain the Technological principles that have been used in the **development** of the outcome such as usability testing, prototyping etc.

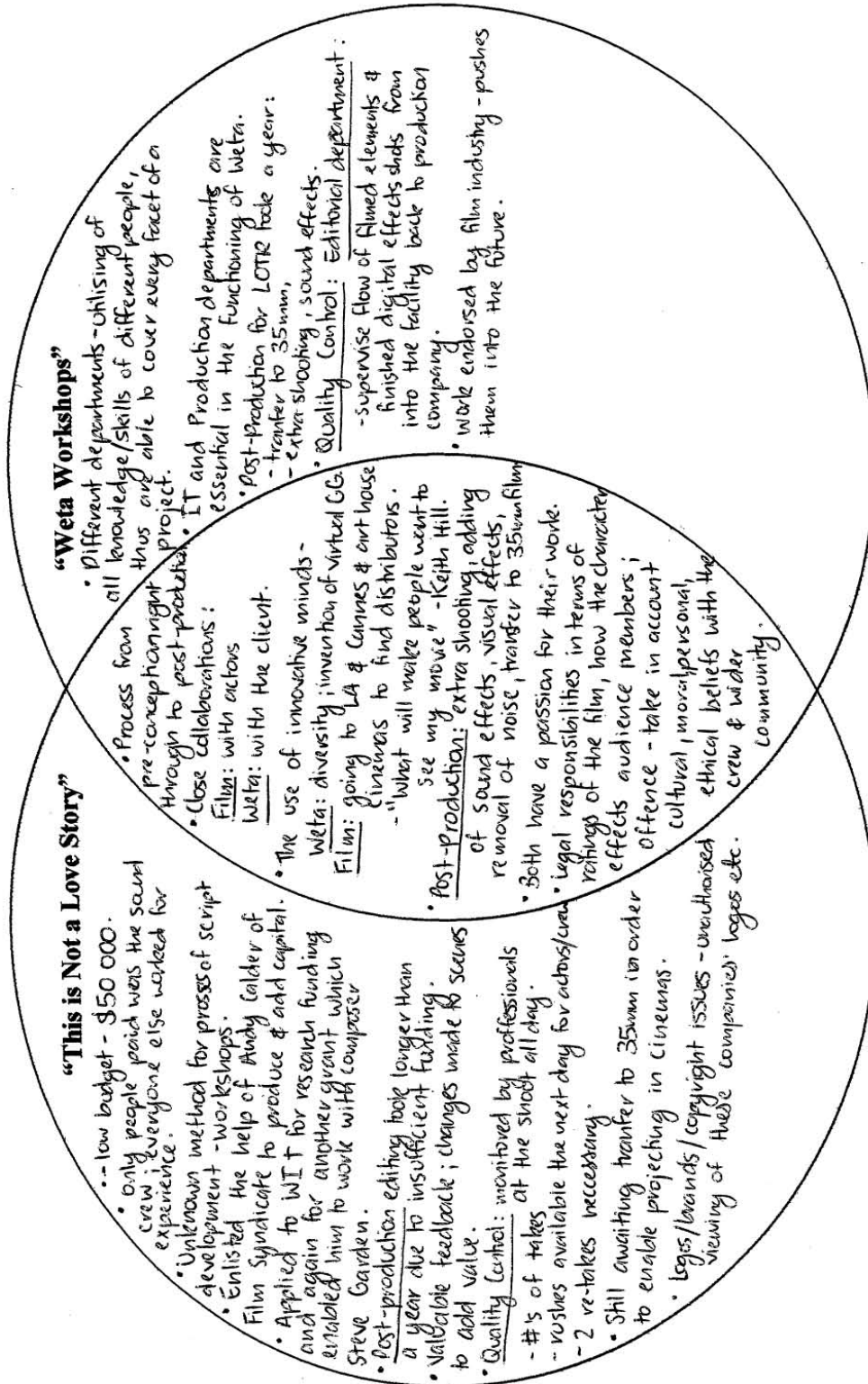
Explain How the key resources and principles **combine** to enable the technological outcome to **function to meet its specifications. How did they evaluate the outcome?**

Now visit this website, read the case study and answer the questions again.

<http://www.techlink.org.nz/Case-studies/Technological-practice/ICT/>

Finally compare/contrast the two processes used to produce the outcomes. See example below:

Compare and Contrast



In your folio, **note any details** you can about how **the two case studies can guide your work.**

Make notes on your case studies and highlight in your visual diary.

Of particular interest in the use of windows movie maker for the digital photo story of Taranaki and how the techniques used in this scenario can be applied to your personal digital gift.

You need to discuss **how the quality of their own outcome has been influenced** by the **interactions between the knowledge gained and their practice.**

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Result: Merit

What were the main factors that contributed to this material receiving the result it did?

- The student has investigated a **wide range of garment available suited to her issue.**
- The student has identified the type of garment and price.
- She then **explains** what is in fashion, what types of sleeves, neck lines and other styles are available and what is not. She also **investigates items** she already has in her wardrobe and relates these to styles and colour.
- The student summarises this in her planning.
- The student **case studies Andrea Moore designs** and has included some annotations.
- The last few pages contain a **more detailed insight into Andrea Moore and how the company works.**
- This is explained in detail as to how that information informs her practice.

In order to receive a higher result what would the student have needed to demonstrate?

- The student would **need to compare and contrast at least two technological outcomes** e.g. different outfits or designer.
- The student would need to discuss **how the quality of their own outcome has been influenced** by the **interactions between the knowledge gained and their practice.**

Further comments

- Although the information on Andrea Moore case study shows evidence of informing the student's practice it would be also be relevant for the student to do more research on current fashion outcomes in depth which will inform her practice in the development of her outcome. In depth technological knowledge would refer to technological principles and key resources used.