Achievement Standard

Subject Reference Generic Technology 1.4

Title Undertake development to make a prototype to address a brief

Level 1 **Credits** 6 **Assessment** Internal

Subfield Technology

Domain Generic Technology

Status Registered **Status date** 20 January 2011

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This achievement standard involves undertaking development to make a prototype to address a brief.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
• Undertake development to make a prototype to address a brief.	• Undertake development to make a refined prototype to address a brief.	• Undertake development to make a justified prototype to address a brief.

Explanatory Notes

1 This achievement standard is derived from Level 6 of the Technology learning area (Technological Practice strand) in *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and is related to the material in the *Teaching and Learning Guide for Technology*, Ministry of Education, 2010 at http://seniorsecondary.tki.org.nz.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools,* Learning Media, Ministry of Education, 1998; and The Health and Safety in Employment Act 1992, and in the *Technology Curriculum Support*, October 2010 that can be found at http://www.techlink.org.nz/curriculum-support/pdfs/technology-curriculum-support-Oct-10.pdf .

Further information about outcome development and evaluation can be found at http://www.techlink.org.nz/curriculum-support/papers/practice/outcome-dev/index.htm and http://www.techlink.org.nz/curriculum-support/indicators/index.htm.

For resources relating to legal, ethical and moral responsibilities, refer to the Techlink website at http://www.techlink.org.nz/IP/links.htm.

2   *Undertake development to make a prototype to address a brief* involves:
    - selecting and using materials and/or components
    - selecting and using tools and equipment
    - applying practical techniques and processes to make a prototype
    - evaluating the prototype in terms of the fitness for purpose of the outcome for its intended physical and social environment.

    Undertake development to make a refined prototype to address a brief involves:
    - trialling, to inform selection and use of materials and/or components
    - trialling, to inform the selection and application of practical techniques and processes.

    Undertake development to make a justified prototype to address a brief involves:
    - trialling the prototype to gain evidence of the its fitness for purpose in its intended physical and social environment
    - using evidence, including stakeholder feedback, to make a judgement of the prototype's fitness for purpose.

3   The brief may be provided by the teacher or developed by the student. If the student develops the brief then the teacher must ensure that it provides sufficient guidance to enable the prototype to be developed. The brief used for this standard must allow for a range of outcomes and include a conceptual statement and specifications for the prototype to be evaluated against.

4   The physical environment refers to the place where the final outcome will be situated. The social environment refers to those who will interact with the final outcome.

5   A *prototype* is a finished outcome that is ready to be trialled in situ. It is developed through technological practice and is reflective of accepted techniques and tolerances, and safety and legal responsibilities. Prototyping is the trialling of the prototype to gain evidence for the evaluation of the outcome's fitness for purpose in its intended physical and social environment.

6   Fitness for purpose refers to the outcome's ability to address its brief when situated in its intended location.

7   Conditions of Assessment related to this achievement standard can be found at http://www.tki.org.nz/e/community/ncea/conditions-assessment.php.

Replacement Information
This achievement standard replaced unit standard 13403, unit standard 13406, and unit standard 14375.

This achievement standard, AS91045, AS91048, and AS91049 replaced unit standard 13389.

Quality Assurance

1   Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.

2   Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference   0233