Achievement Standard

Subject Reference   Generic Technology 1.7

Title   Demonstrate understanding of the role of subsystems in technological systems

Level   1   **Credits**   4   **Assessment**   External

Subfield   Technology

Domain   Generic Technology

Status   Registered   **Status date**   20 January 2011

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This achievement standard involves demonstrating understanding of the role of subsystems in technological systems.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
• Demonstrate understanding of the role of subsystems in technological systems.	• Demonstrate in-depth understanding of the role of subsystems in technological systems.	• Demonstrate comprehensive understanding of the role of subsystems in technological systems.

Explanatory Notes

1   This achievement standard is derived from Level 6 of the Technology learning area (Technological Knowledge 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 technological systems can be found at http://www.techlink.org.nz/curriculum-support/papers/knowledge/tech-systems/index.htm and http://www.techlink.org.nz/curriculum-support/indicators/index.htm.

2   *Demonstrate understanding of the role of subsystems in technological systems* involves:
    - identifying subsystems in technological systems
    - describing the role of subsystems in technological systems
    - describing how subsystems work together to allow technological systems to function.

    Demonstrate in-depth understanding of the role of subsystems in technological systems involves:
    - explaining how control and feedback allow subsystems to function in technological systems
    - explaining the advantages and disadvantages of subsystems in technological systems.

    Demonstrate comprehensive understanding of the role of subsystems in technological systems involves:
    - discussing the advantages and/or disadvantages of subsystems used in particular technological systems
    - discussing the implications of subsystems on the design, development and maintenance of technological systems.

3   The *technological systems* must have clearly identifiable subsystems and known functions.

4   *Technological systems* are often made up of *subsystems* which are 'smaller' technological systems with their own intended function. When subsystems act as components of a 'larger' technological system, they support that system's overall function.

5   Assessment Specifications for this achievement standard can be accessed through the Technology Resources page found at http://www.nzqa.govt.nz/ncea/resources.

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