Achievement Standard

Subject Reference	Digital Technologies 2.3				
Title	Use advanced techniques to develop a database				
Level	2	**Credits**	4	**Assessment**	Internal
Subfield	Technology				
Domain	Digital Technologies				
Status	XX	**Status date**	XX		
Planned review date	XX	**Date version published**	XX		

This achievement standard involves using advanced techniques to develop a database.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
• Use advanced techniques to develop a database.	• Use advanced techniques to develop an informed database.	• Use advanced techniques to develop a refined database.

Explanatory Notes

1 This achievement standard is derived from the Technology learning area 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 at http://seniorsecondary.tki.org.nz.

Further information can be found at http://www.technology.tki.org.nz/.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools,* Ministry of Education at http://technology.tki.org.nz/Technology-in-the-NZC/Safety-in-Technology-Education-revised-2017, and the Health and Safety at Work Act 2015.

This standard is also derived from *Te Marautanga o Aotearoa*. For details of *Te Marautanga o Aotearoa* outcomes to which this standard relates, see the Papa Whakaako for the relevant learning area.

DRAFT

2 *Use advanced techniques to develop a database* involves:
- designing the structure of the data
- using appropriate tools and advanced techniques to organise, query and present data for a purpose and end user
- applying appropriate data integrity and testing procedures
- explaining relevant implications.

Use advanced techniques to develop an informed database involves:
- using information from testing procedures to improve the quality of the database
- structuring, organising and querying the data logically
- addressing relevant implications.

Use advanced techniques to develop a refined database involves:
- iterative improvement throughout the design, development and testing process
- presenting the data effectively for the purpose and end user.

3 Examples of relevant implications include:
- social
- cultural
- legal
- ethical
- intellectual property
- privacy
- accessibility
- usability
- functionality
- aesthetics
- sustainability and future proofing
- end-user considerations
- health and safety.

4 *Advanced techniques* will include a selection from:
- linking data in related tables or nodes using queries or keys
- writing custom queries to filter and/or sort data
- using logical, mathematical and/or wildcard operators
- customising presentation of the data
- using custom forms to add user input to the database
- setting validation rules for data entry.

5 Conditions of Assessment related to this achievement standard can be found at http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards.

Replacement Information

DRAFT

Quality Assurance

1 Providers and Industry Training Organisations must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.

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

Consent and Moderation Requirements (CMR) reference 0233

DRAFT