Achievement Standard

Subject Reference	Chemistry 2.7				
Title	Describe oxidation-reduction reactions				
Level	2	**Credits**	3	**Assessment**	External
Subfield	Science				
Domain	Chemistry				
Status	Expiring			**Status date**	17 November 2011

This achievement standard is expiring. Assessment against the standard must take place before the expiry date set out below.

Expiry date	31 December 2011	**Date version published**	17 November 2011

This achievement standard involves describing oxidation-reduction reactions.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
• Describe oxidation-reduction reactions.	• Apply oxidation-reduction principles.	• Discuss oxidation-reduction processes.

Explanatory Notes

1 This achievement standard is derived from achievement objectives 7.1, 7.2 and 7.3 in *Chemistry in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1994, p. 23.

2 Knowledge of appearance and state of the following reactants and their products is required. Oxidants are limited to: O_2, I_2, Cl_2, H^+, Fe^{3+}, H_2O_2, $MnO_4^-{}_{(aq)}/H^+$, $Cr_2O_7^{2-}{}_{(aq)}/H^+$. Reductants are limited to metals, C, CO, H_2, Fe^{2+}, Br^-, I^-, SO_2, (HSO_3^-). Appropriate information relating to any other oxidants or reductants will be provided.

3 Aspects of oxidation-reduction include:
- determine oxidation numbers
- write balanced oxidation-reduction equations
- identify oxidants and/or reductants
- recognise the ability of halogens to act as oxidants in reactions with other elements, water or halide ions.

4 Oxidation-reduction reactions may be assessed in the context of simple electrolytic cells. Knowledge of preferential discharge is not required.

5 Terms:
- *Describe* requires the student to identify, name, draw, give characteristics of, or an account of.
- *Discuss* requires the student to show understanding as to how or why something occurs by linking chemistry ideas/principles. It may involve students in justifying, relating, evaluating, comparing and contrasting, analysing.

Replacement Information
This achievement standard and unit standard 8947 have been replaced by AS91167.

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 0226