

## Field Sciences

### Review of *Science* unit standards

Subfield	Domain	ID
Science	Biology	6314, 6315, 8092, 8094, 8097, 8098, 8102, 9226, 9227, 12812, 12813, 26420, 26509-26511
	Chemistry	6345, 6347, 8436, 8439, 8443-8446, 8448-8453, 8455-8457, 8459, 8470, 8949, 9242, 12363, 16565-16567, 26341, 26342, 26345

NZQA National Qualifications Services (NQS) has completed the review of the unit standards listed above.

**Date new versions published**

**October 2020**

### Summary

The 15 Biology unit standards and 28 Chemistry unit standards were recommended for expiry as part of a scheduled review. Following research, these standards were identified to have low and declining usage over time and overlap with comparable achievement standards.

Stakeholders were informed and none objected to the proposal to expire the standards.

### Main changes

- All the unit standards were designated expiring without replacement due to low usage.

**These Category D unit standards will expire at the end of December 2022**

### Detailed list of unit standards – classification, title, level, and credits

Key to review category	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

Sciences > Science > Biology

ID	Title	Level	Credit	Review Category
6314	Complete an investigation into the ecological niche of a plant species, with guidance	3	4	D
6315	Complete an investigation into the ecological niche of an animal species, with guidance	3	4	D
8092	Measure plant physiological processes	6	4	D
8094	Measure animal physiological processes	6	4	D
8097	Analyse field measurements of plants	5	4	D
8098	Analyse field measurements of animals	5	4	D
8102	Explain genetic change	5	6	D
9226	Demonstrate knowledge of plant and animal characteristics	4	4	D

ID	Title	Level	Credit	Review Category
9227	Demonstrate knowledge of plant tissues	4	4	D
12812	Describe eukaryotic cell structure and function	4	5	D
12813	Demonstrate knowledge of the biochemistry of cells	4	5	D
26420	Perform histological techniques	5	4	D
26509	Explain biodiversity of New Zealand	4	4	D
26510	Demonstrate knowledge of ecosystems	4	4	D
26511	Demonstrate knowledge of animal tissues	4	4	D

Sciences > Science > Chemistry

ID	Title	Level	Credit	Review Category
6345	Analyse oxidation - reduction reactions	3	4	D
6347	Describe applications of surface chemistry	3	2	D
8436	Demonstrate laboratory solvent and distillation separation techniques	4	5	D
8439	Perform titrations	5	5	D
8443	Evaluate physical properties of matter	4	3	D
8444	Perform analysis of water	6	6	D
8445	Demonstrate knowledge of the composition and analysis of polluted and unpolluted air	6	5	D
8446	Demonstrate spectroscopic techniques	6	6	D
8448	Demonstrate knowledge of acid-base pH measurement and equilibria	4	5	D
8449	Demonstrate knowledge of atomic electronic structure	5	4	D
8450	Demonstrate knowledge of thermodynamics	5	3	D
8451	Demonstrate knowledge of reaction rate and mechanisms	5	5	D
8452	Demonstrate knowledge of the behaviour of gases	4	2	D
8453	Perform qualitative anion and cation analysis	4	3	D
8455	Describe organic structures and synthesise organic compounds	5	6	D
8456	Demonstrate knowledge of, and synthesise, aromatic compounds	5	3	D
8457	Apply knowledge of the chemistry of carbohydrates, lipids and proteins	5	8	D
8459	Perform gas chromatography	6	4	D
8470	Demonstrate knowledge of electrochemistry	5	4	D
8949	Characterise the composition of acid and base solutions	3	4	D
9242	Perform titrimetric analysis using colour indicators	4	5	D
12363	Demonstrate knowledge of chromatography systems	5	4	D
16565	Demonstrate knowledge of organic compounds	4	5	D
16566	Perform organic chemistry functional group analysis	4	5	D
16567	Demonstrate knowledge of the periodic table and properties of selected elements	4	7	D
26341	Perform titrimetric analyses	4	6	D
26342	Perform gravimetric analyses	4	4	D
26345	Demonstrate knowledge of an issue in a sustainable chemistry context	5	4	D