Title	**Describe eukaryotic cell structure and function**		
Level	**4**	**Credits**	**5**

Purpose	People credited with this unit standard are able to describe: cell structure; cell transport processes; and cell cycles.

Classification	Science > Biology

Available grade	Achieved

Guidance Information

Glossary
Cellular structures of plant cell type include – cell walls; cell membrane; membrane-bound organelles including mitochondria, chloroplasts, vacuole, golgi apparatus, endoplasmic reticulum; microtubule-based organelles including asters, spindle; cytoskeleton; ribosomes.
Cellular structures of animal cell type include – cell membrane; membrane-bound organelles including mitochondria, lysosomes, golgi apparatus, endoplasmic reticulum; microtubule-based organelles, including cilia or flagella, centrioles, spindle; cytoskeleton, ribosomes.
Cellular structures of eukaryotic microorganism include – cell walls; cell membrane; membrane-bound organelles including mitochondria, chloroplasts, lysosomes vacuole, golgi apparatus, endoplasmic reticulum; microtubule-based organelles including asters, spindle; cytoskeleton; cilia or flagella, centrioles, spindle, ribosomes, cytoskeleton.

Outcomes and performance criteria

Outcome 1

Describe cell structure.

Range two of – animal, plant, eukaryotic microorganism.

Performance criteria

1.1 Eukaryote cells are described in terms of their structure.

1.2 Cellular organelles are described in terms of their structure.

1.3 Cellular organelles are described in terms of their function.

Outcome 2

Describe cell transport processes.

Performance criteria

2.1 Transport is described in terms of transport processes.

Range simple diffusion, osmosis, active transport, endocytosis, exocytosis.

2.2 Cellular transport processes are explained in terms of the properties of the substances transported.

Range size, charge, lipid solubility, water solubility.

Outcome 3

Describe cell cycles.

Performance criteria

3.1 Cell cycle is outlined in terms of the stages of cell activity.

3.2 Stages of mitosis are described in terms of cellular events.

Range chromosomal, nuclear envelope, microtubule structures.

3.3 Eukaryotic cell types are differentiated in terms of cytokinesis.

Range two of – animal, plant, eukaryotic microorganism.

Planned review date	31 December 2020

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 1998	31 December 2014
Review	2	23 November 1999	31 December 2014
Review	3	21 May 2010	N/A
Rollover	4	27 January 2015	N/A
Rollover and Revision	5	15 June 2017	N/A
Revision	6	26 October 2017	N/A

Consent and Moderation Requirements (CMR) reference	0113

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact NZQA National Qualifications Services nqs@nzqa.govt.nz if you wish to suggest changes to the content of this unit standard.