

Achievement Standard

Subject Reference Biology 2.8

Title Describe cell structure and function

Level 2 **Credits** 3 **Assessment** External

Subfield Science

Domain Biology

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 cell structure and function.

Achievement Criteria

| Achievement | Achievement with Merit | Achievement with Excellence |
|---|--|--|
| <ul style="list-style-type: none"> Describe cell structure and function. | <ul style="list-style-type: none"> Explain cell structure and function. | <ul style="list-style-type: none"> Discuss cell structure and function. |

Explanatory Notes

- This achievement standard is derived from *Biology in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1994, p. 7, biological skills and pp. 20-26, achievement objective 7.1(c).
- Cells* will include: plant cells, animal cells, and unicellular organisms.
- Cell structure and function* will include:
 - cellular components and organelles: cell wall, cell membrane, cytoplasm, nuclear membrane, nucleus, chromosomes, mitochondria, chloroplast, centriole, cilia, flagellum, vacuole, contractile vacuole, ribosome, endoplasmic reticulum, lysosome, golgi body, eye spot;

- cell processes:
 - movement of materials: diffusion, osmosis, active transport, secretion
 - cell respiration and photosynthesis as they relate to the overall functioning of the cell (detail of the stages in the processes is not required)
 - enzyme activity and DNA replication;
- factors that affect cell structures and processes;
- reasons for similarities and differences between cells such as size, shape, relative numbers of organelles present, size of organelle (eg vacuole, cell membrane), internal structure.

4 Terms:

- *Describe* requires the student to define, give characteristics of, or an account of.
- *Explain* requires the student to provide a reason as to how or why something occurs.
- *Discuss* requires the student to show understanding by linking biological ideas. It may involve justifying, relating, evaluating, comparing and contrasting, or analysing.

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