

Achievement Standard

Subject Reference Biology 2.8

Title Describe cell structure and function

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

Subfield Science

Domain Biology

Registration date 26 November 2004 **Date version published** 26 November 2004

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

- 1 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).
- 2 *Cells* will include: plant cells, animal cells, and unicellular organisms.
- 3 *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 be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0226