

**402/7**

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**Curriculum  
Council**

# **BIOLOGY**

(Year 12 E402)

## **Grade-Related Descriptors**





## GRADE-RELATED DESCRIPTORS

### THE GRADING PROCESS

The current model for assigning grades at the conclusion of a subject is “standards-referenced”. In such a system each student’s performance in a subject is considered with reference to a set of predetermined standards at each grade level. The “predetermined standards” are defined through the use of grade-related descriptors.

Grade-related descriptors aim to capture and describe (as explicitly as possible and in relatively broad terms) those behaviours expected to be typically displayed by students at each grade level for each subject. For teachers they are a *point of reference* against which they must match their professional judgment in determining students’ final grades.

### FEATURES OF GRADE-RELATED DESCRIPTORS

As a general principle, grade-related descriptors should:

- summarise the *general characteristics* of student performance at each level of achievement
- express, in *positive terms*, what a student knows, understands and is able to do
- *clearly define* on a continuum of performance the level of proficiency for *all grades* (A, B, C, D and E)
- be readily *usable* by teachers in making judgments about final grades to be assigned
- provide a ‘*target*’ for students in their efforts to obtain various grades
- be developed with reference to student work samples as *source material* at each grade level
- relate directly to the content of the course

### USING GRADE-RELATED DESCRIPTORS

In planning the assessment program and developing each component task teachers will need to ensure that:

- the nature of each task takes account of the ways that students typically develop over the period of studying the subject
- the rubric for numerical assessment (marking key) for each task is designed with reference to the grade-related descriptors.
- each task that counts towards the awarding of a grade provides students with the opportunity to demonstrate achievement across the full range of performance described in the relevant section/objective of the grade-related descriptors.

The *critical use* of grade-related descriptors is to assist teachers in making comparable judgments about the grades to be awarded at the conclusion of a subject. They do not stand alone. They are *one of a number* of mechanisms available to teachers in deciding summative assessments to be reported to Curriculum Council. They are best used as a point of reference in determining cut-offs after the evaluation of the assessment data collected.

When applying grade-related descriptors, it is also necessary to note that an A student, for example, need not achieve an ‘A’ on all objectives. Teachers will develop a *profile* of achievement of their students across different aspects of the subject and must themselves, with reference to exemplars and moderation procedures, make the *final judgment* of the grade achieved.

## GRADE-RELATED DESCRIPTORS – BIOLOGY YEAR 12 E402

EDUCATIONAL OBJECTIVES	A	B	C	D	E
The student should be able to:	<p>recall a very high proportion of essential biological factual information.</p> <p>recall and explain – using the appropriate scientific terminology – a very high proportion of biological concepts and principles.</p> <p>display a wide range of higher-order intellectual process skills.</p> <p>demonstrate very good scientific process skills, including:</p> <ul style="list-style-type: none"> <li>(i) observing, recording, interpretation and application of data</li> <li>(ii) problem solving</li> <li>(iii) hypothesis formation and testing</li> <li>(iv) experimental design.</li> </ul> <p>demonstrate excellent communication in oral and written forms.</p>	<p>recall a high proportion of essential biological factual information.</p> <p>recall and explain – using the appropriate scientific terminology – a high proportion of biological concepts and principles.</p> <p>display a good range of higher-order intellectual process skills.</p> <p>demonstrate good scientific process skills, including:</p> <ul style="list-style-type: none"> <li>(i) observing, recording, interpretation and application of data</li> <li>(ii) problem solving</li> <li>(iii) hypothesis formation and testing</li> <li>(iv) experimental design.</li> </ul> <p>demonstrate very good communication skills in oral and written forms.</p>	<p>recall much of the essential biological factual information.</p> <p>recall and explain – using their own words – some of the biological concepts and principles.</p> <p>demonstrate some ability in scientific process skills, including:</p> <ul style="list-style-type: none"> <li>(i) observing, recording, interpretation and application of data</li> <li>(ii) problem solving</li> <li>(iii) hypothesis formation and testing</li> <li>(iv) experimental design.</li> </ul> <p>demonstrate good communication skills in oral and written forms.</p>	<p>recall some of the essential biological factual information.</p> <p>recall and explain – using their own words – a few of the biological concepts and principles.</p> <p>demonstrate limited ability in scientific process skills, including:</p> <ul style="list-style-type: none"> <li>(i) observing, recording, interpretation and application of data</li> <li>(ii) problem solving</li> <li>(iii) hypothesis formation and testing</li> <li>(iv) experimental design.</li> </ul> <p>demonstrate reasonable communication skills in oral and written forms.</p>	<p>recall little of the essential biological factual information.</p> <p>recall and explain – using their own words – a very limited number of biological concepts and principles.</p> <p>demonstrate very limited ability in any of the scientific process skills.</p> <p>demonstrate limited communication skills in oral and written forms.</p>

## GRADE-RELATED DESCRIPTORS – BIOLOGY YEAR 12 E402

EDUCATIONAL OBJECTIVES	A	B	C	D	E
The student should be able to:	conduct experiments in a sound reliable way, using scientific equipment carefully and effectively.	conduct experiments in a sound reliable way, using scientific equipment carefully and effectively.	conduct experiments in a reliable way, using scientific equipment carefully and effectively.	conduct simple experiments – under direction – using scientific equipment carefully.	conduct simple experiments – under direct supervision – using scientific equipment carefully.
	make relevant quantitative and qualitative observations and record these using appropriate conventional forms.	make relevant quantitative and qualitative observations and record these using appropriate conventional forms.	make relevant quantitative and qualitative observations and record these, under direction, in the appropriate conventional forms.	make accurate quantitative and qualitative observations and record these, under guidance, in the appropriate forms.	make only limited quantitative and qualitative observations and record these, under strong guidance, in the appropriate forms.