

403/4
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Curriculum
Council

CHEMISTRY

(Year 11 D403 & 12 E403)

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 – CHEMISTRY YEAR 11 D403 & YEAR 12 E403

		A	B	C	D	E
OBJECTIVES		OUTSTANDING ACHIEVEMENT	HIGH ACHIEVEMENT	SATISFACTORY ACHIEVEMENT	LOW ACHIEVEMENT	VERY LIMITED ACHIEVEMENT
COGNITIVE OBJECTIVES	<p>Know conventions, definitions, terminologies, classification systems, major trends and nomenclature rules.</p> <p>Know factual information concerned with the nature and properties of matter, the physical and chemical properties and related uses of chemical substances, changes which occur in chemical reactions, and important industrial chemical processes.</p> <p>Understand and apply generalisations, principles, laws and theories to explain and interpret relationships between the structure of matter and its properties and changes which occur in chemical reactions.</p> <p>Perform chemical calculations using the mole as a unifying concept.</p> <p>Interpret data and analyse information to identify generalisations and trends; synthesise chemical information in novel situations; and evaluate information by distinguishing observations from interpretations, recognising logical inconsistencies and judging the accuracy of data and the validity of assumptions.</p>	<p>Extensive knowledge and understanding in all areas.</p> <p>High level of ability to explain or apply principles or theories in all areas.</p>	<p>Fairly detailed knowledge and understanding in most areas.</p> <p>Sound ability to explain or apply principles or theories in most areas.</p>	<p>Sound knowledge and understanding in most areas.</p> <p>Fair ability to explain or apply principles or theories.</p>	<p>Some knowledge and understanding, but significant knowledge gaps.</p> <p>Moderate ability to explain or apply principles or theories.</p>	<p>Limited knowledge</p> <p>Frequently cannot explain or apply principles or theories.</p>
LABORATORY OBJECTIVES	<p>Know a range of common experimental procedures and techniques, and the theoretical principles underlying them.</p> <p>Safely and confidently handle chemicals and recognise and respect those which are dangerous.</p> <p>Use a range of manipulative skills associated with laboratory apparatus.</p> <p>Follow instructions concerning experimental procedures quickly and accurately.</p> <p>Accurately observe, measure, record and report on chemical phenomena in the context of laboratory work, and interpret experimental findings and observations.</p> <p>Develop experimental procedures for the solution of simple chemical problems in the context of laboratory work.</p> <p>Understand the importance of uncertainty in measurement and use significant figures as an indication of the degree of uncertainty.</p>	<p>High knowledge and ability on these objectives, working in a largely independent manner. High level of analysis and interpretation and able to design simple experiments.</p>	<p>Sound knowledge and ability on these objectives, requiring only limited guidance. Can analyse and interpret results competently.</p>	<p>Fair knowledge and ability on these objectives but has some difficulty with complex tasks.</p>	<p>Some knowledge and ability on these objectives but has difficulty with analysis and interpretation of results.</p>	<p>Limited knowledge and ability on these objectives.</p>

