

# Science (1999)

## Years 1 to 10

### Sourcebook Guidelines (Part 6 of 8)

*Note:* The PDF version of this document has been split into sections for easier download. This file is Part 6 of 8.

# Evaluation

Evaluation is the process of collecting, analysing and interpreting information so that judgments can be made regarding the appropriateness, effectiveness and efficiency of:

- the implementation of the syllabus and sourcebook;
- the development and implementation of school-based activities, units and programs that reflect syllabus requirements.

**Appropriateness** refers to the extent to which activities, units and programs:

- are suited to the developmental levels and learning styles of students;
- are inclusive of, and relevant to, all students;
- promote active learner involvement and self-reflection.

**Effectiveness** refers to the extent to which activities, units and programs are sequenced and comprehensive in their focus on the requirements of the syllabus.

**Efficiency** refers to the extent to which activities, units and programs make timely and cost-effective use of resources.

The purpose of evaluation is to provide a basis for decision making about the need for and the direction of change. Sometimes it provides reassurance that current programs and practices are continuing to meet specific needs. On the other hand, evaluation may show discrepancies between students' needs and programs and practices, requiring changes to be made in one or more areas.

Evaluation may be ongoing or may take place at the conclusion of a program, unit, or period of time. Ongoing evaluation allows continuous refinement of a program; end-point evaluation enables a holistic picture of a program or unit to be formed. The timing of evaluation depends on its purpose.

Evaluation may be conducted by teachers, administrators or other stakeholders working alone or in collaboration with one or more of their colleagues.

## Implementation of the syllabus and sourcebook

### Syllabus

Judgments to determine the appropriateness, effectiveness and efficiency with which the syllabus requirements have been implemented in the school will include considering the extent to which:

- the characteristics and needs of students, including those in target groups, have been identified and catered for in school programs;

- programs have encompassed the requirements of the syllabus, in particular:
  - key learning area outcomes;
  - core learning outcomes;
  - core content;
  - principles of assessment;
  - cross-curricular priorities;
  - inclusive curriculum principles;
  - valued attributes of lifelong learning;
  - learner-centred approach;
- the outcomes approach to education promoted in the syllabus has been accepted by all members of the community, including students;
- relevant school authority policies have been identified and acted upon;
- physical, human and material resources have been managed effectively.

### Sourcebook

Judgments to determine the appropriateness, effectiveness and efficiency with which the sourcebook has been implemented in the school will include considering the extent to which:

- teachers have used modules as a model for planning units focusing on learning outcomes, core content and the cross-curricular priorities;
- modules, elaborations of core learning outcomes and other features of the sourcebook have been used to inform the planning and assessment of programs, units and activities which are inclusive and relevant to student needs;
- modules have informed the use of resources in accordance with school authority policies;
- information in the sourcebook has influenced the updating, modification or acquisition of resources.

## Evaluation of programs, units and activities

### Learners

Judgments to determine the appropriateness, effectiveness and efficiency with which the needs of learners have been met will include considering the extent to which students have:

- had their life experiences and interests acknowledged and incorporated into the curriculum;
- perceived that their learning is relevant to their current and future needs;
- had opportunities to inform teachers of their prior learnings, understandings, learning styles and abilities;
- been actively involved and can negotiate the sequence and pace of their own learning;
- had opportunities to develop an understanding of the aspects and components of ‘working scientifically’ described in the learning outcomes;
- had multiple opportunities to demonstrate the outcomes;
- had equitable access to resources of suitable quality and quantity to support them in their learning.

### Experiences that promote learning

Judgments to determine the appropriateness, effectiveness and efficiency of delivery of experiences that promote learning will include considering the extent to which they:

- are appropriate to the interests, life experiences and learning styles of students;
- are contextualised to suit the needs of students;
- cater for the possible range of student development;
- lead to the demonstration of learning outcomes;
- allow students multiple opportunities for demonstrating learning outcomes;
- overcome barriers to equitable demonstrations of outcomes;
- actively engage students in the learning process;
- challenge the students;
- include opportunities for self-reflection and self-assessment;
- display continuity in the planned development of conceptual understandings and ‘working scientifically’;
- focus on the learning outcomes, core content and cross-curricular priorities;
- use physical, human and material resources in ways that enhance students’ opportunities to learn;
- are further enhanced by the purchase and distribution of resources in a timely and cost-efficient manner;
- adhere to school authority policies.

### Assessment

Judgments to determine the appropriateness, effectiveness and efficiency with which assessment is embedded in programs, units and activities will include considering the extent to which assessment:

- is inclusive of all students;
- actively engages students;
- is based on current knowledge of child and adolescent development and caters for the possible range of student developmental levels;
- uses a variety of forms to suit the individual learning styles and abilities of students;
- focuses on learning outcomes;
- is effective in allowing students to demonstrate outcomes;
- is related to the sequenced development of conceptual understanding, and to the aspects and components of ‘working scientifically’;
- is an integral part of the learning process;
- provides opportunities for reflection and self-monitoring;
- incorporates where appropriate the cross-curricular priorities;
- uses a learner-centred approach;
- incorporates techniques for gathering information that suit the learning outcome and context;
- is adequately resourced.

## Outcomes approach

Judgments to determine the appropriateness, effectiveness and efficiency with which an outcomes approach to education is embedded in programs, units and activities will include considering the extent to which:

- there is a clear focus on learning outcomes;
- students are aware of the reasons for learning what they are learning;
- it is recognised that all students can succeed;
- students are given time to produce work of a high standard;
- there is a focus on current knowledge of child and adolescent development;
- students are provided with opportunities for self-assessment so that they can monitor their own progress;
- a wide range of teaching strategies is used to cater for the developmental differences, prior knowledge and skills of students;
- there is a learner-centred approach to learning and teaching;
- barriers to students' demonstrations of learning outcomes are identified and overcome;
- the different backgrounds, interests, prior understandings, experiences and learning styles of students are valued;
- students are provided with opportunities to progress and demonstrate core learning outcomes in more than one context;
- there is sufficient flexibility in the curriculum to cater for the different characteristics and learning needs of students;
- planning of experiences that promote learning and of assessment occur at the same time;
- assessment is seen as a learning opportunity and the results used to inform future planning;
- clear expectations of student performance have been established.