

Unit outcomes

Package it better

Science outcomes

Package it better is a Stage 3 unit. Unit outcomes have been identified for Level 3 and Level 4 of the *National Scientific Literacy Progress Map*, allowing teachers to cater for the range of abilities in the sixth and seventh years of schooling. Summative assessment will need to take account of the levels of achievement expected for a cohort of students. Summative assessment of conceptual learning outcomes (c) occurs in the *Evaluate* phase. Evidence can be collected for unit investigating outcomes (i) in Lesson 4 and in the *Elaborate* phase, Lesson 7.

Level 3

- c Describe the characteristics of packages and the properties of materials used to make them.
- c Explain how and why materials are chosen for particular purposes.
- c Identify key design features and environmental effects of products and processes used to make packages.
- c Identify design criteria that reflect the design brief.
- i Plan investigations and product evaluations using models and technical terms showing awareness of the need for fair testing.
- i Make and record observations using a table.

Level 4

- c Explore relationships between the properties of materials and their use.
- c Explain options and reasons for the selection of materials and the design of a package.
- c Generate package designs based on a design brief that takes into account some social and environmental implications.
- c Suggest creative solutions to a package and safely deliver a fragile gift.
- i Change one factor at a time during an investigation and test sufficient samples to make reliable conclusions.
- i Plan investigations and product evaluations involving a control and replicates.
- i Analyse patterns and make evidence based conclusions from results recorded in investigations and product evaluations.

Literacy focuses

Package it better engages students in activities that reflect the mutually supportive relationship between science, technology and literacy. Learning activities have been designed to explicitly introduce the literacy focuses and to provide students with the opportunity to use them as they think about and represent their understanding of science and technology.

The interdependence of science, technology and literacy is demonstrated throughout the unit when students participate in discussions and use talk to: inquire, report on observations, clarify understanding and reflect on experience. The use of gestures and oral, written and visual language to relate science and technology to students' personal worlds is another important aspect.

The literacy focuses identified for *Package it better* are:

- design portfolios
- summaries
- interviews
- writing questions
- word walls
- tables
- procedural texts
- oral presentations.