

Unit outcomes

Science outcomes

Light fantastic is a Stage 2 unit. Unit outcomes have been identified for Level 2 and Level 3 of the *National Scientific Literacy Progress Map*, allowing teachers to cater for the range of abilities in the fourth and fifth 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 and summative assessment of the investigating outcomes (i) occurs in the Elaborate phase.

Level 2

- c Identify several sources of light and their uses.
- c Explain that light travels in straight lines.
- c Explain that we see objects when light reflects off the object into our eyes.
- c Compare the ability of transparent, translucent and opaque materials to transmit light.
- i Identify some variables that can be investigated.
- i Make observations and record measurements in a table.

Level 3

- c Draw a ray diagram to explain how light from a source is reflected off an object into the eye so that we see the object.
- c Explain how transparent, translucent and opaque materials affect the transmission of light.
- i Plan an investigation showing awareness of the need for fair testing.
- i Display results in a column graph and summarise patterns in results.

Literacy focuses

Light fantastic engages students in activities that reflect the mutually supportive relationship between science 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.

The interdependence of science 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 oral, written and visual language to relate science to students' personal worlds is another important aspect.

The literacy focuses identified for *Light fantastic* are:

- science journals
- word walls
- tables
- ray diagrams
- drawings
- oral presentations.