

Why take an interdisciplinary approach?

- Increases the authenticity of the unit/lesson: a true inquiry approach
- Make real world connections between subjects
- Gives students the opportunity to apply and practice skills in engaging and relevant contexts
- Can increase student engagement and interest

Links to Stage 4 Science

Earth and Space:

- Students identify that water is an important resource that cycles through the environment
- Students explain the water cycle in terms of the physical processes involved
- Students demonstrate how scientific knowledge of the water cycle has influenced the development of household, industrial and agricultural water management practices
- Students research how Aboriginal and Torres Strait Islander peoples' knowledge is being used in decisions to care for country and place, e.g. terrestrial and aquatic resource management.

Living World:

- Students explain, using examples, how scientific evidence and/or technological developments contribute to developing solutions to manage the impact of natural events on Australian ecosystems.

Chemical World:

- Students investigate the application of a physical separation technique used in everyday situations or industrial processes, e.g. water filtering, sorting waste materials, extracting pigments or oils from plants, separating blood products or cleaning up oil spills.

Links to Stage 4 Mathematics

Ratios and rates:

- Students recognise and solve problems involving simple ratios
- Students solve a range of problems involving ratios and rates, with and without the use of digital technologies
- Students investigate, interpret and analyse graphs from authentic data
- Students use the relative positions of two points on a line graph, rather than a detailed scale, to interpret information

Area:

- Students choose appropriate units of measurement for area and convert from one unit to another
- Students establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving

Volume:

- Students choose appropriate units of measurement for volume and convert from one unit to another
- Students develop the formulas for the volumes of rectangular and triangular prisms and of prisms in general; use formulas to solve problems involving volume

Links to Stage 4 English

Writing and Representing:

- Students understand and appreciate the way texts are shaped through exploring a range of language forms, features and ideas
- Students explore and analyse the effectiveness of informative and persuasive texts
- Students respond and compose texts using imaginative and informative features that show evidence of developed ideas.

Making Meaning through Language (Outcomes 3 & 4):

- Students engage with language and structures of text in meaningful contexts and authentic ways.
- Students plan, draft and compose informative, imaginative and persuasive texts using aspects of subject matter language to convey ideas using multimodal, audio and print features.