# 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.
* • Use increasingly complex research data from print and digital sources to compose short
* and sustained texts.
* • Compose texts that deal with environmental issues

### 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.