

Curriculum Context Statement – Middle Years

This task involves applying knowledge and skills in the area of right-angled trigonometry. In particular, it involves:

- Working with lengths and angles in a 'compound' shape (two 'nested' right-angled triangles)
- Using trigonometric ratios to determine unknown angles.
- Varying a length to study the effect on angle size
- Pursuing an optimal solution via numerical or graphical methods
- Interpreting results within a 'real-life' context with reference to their limitations and reasonableness

These mathematical behaviours form part of the Australian Curriculum – Mathematics. In particular, in Year 10:

- Solve right-angled triangle problems including those involving direction and angles of elevation and depression (ACMMG245)

Curriculum Context Statement – STEM

The context of this mathematics can be connected to a range of scientific ideas. These connections could be made within a themed unit (i.e. Sport) or, more directly, with the physical sciences content of the Australian Curriculum – Science i.e.

- The motion of objects can be described and predicted using the laws of physics (ACSSU229)

Curriculum Context Statement – Senior Years

This mathematical content and its application features in the Year 11 'General Mathematics' courses of the Australian Curriculum – Senior Secondary and the state-adopted variants as shown below:

Jurisdiction	Course title	Aspect	Topic
NSW	Mathematics Standard	MA-T1	Trigonometry and measure of angles
Queensland	General Mathematics	Unit 2 – Topic 1	Applications of trigonometry
South Australia	General Mathematics	Topic 4.2	Right triangle geometry
Tasmania	General Mathematics	Level 3	Applications of trigonometry
Victoria	General Mathematics	Area of Study 4	Geometry, measurement and trigonometry
Western Australia	Mathematics Applications	Topic 2.2	Applications of trigonometry