# VCE Vocational Major - Numeracy Overview

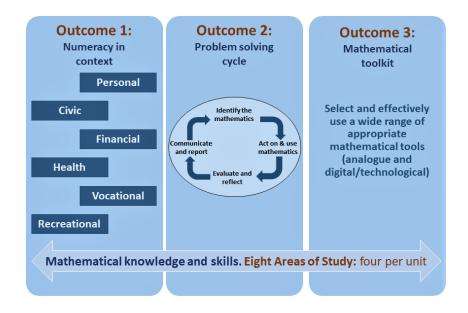
VCE Vocational Major Numeracy is designed around four complementary and essential components:

1. **Eight** areas of study (four in each unit) that name and describe a range of different mathematical knowledge and skills that are expected to be used and applied across the three outcomes.

- 2. **Outcome 1** is framed around working mathematically across six different numeracy contexts:
- a) Personal numeracy
- b) Civic numeracy
- c) Financial numeracy
- d) Health numeracy
- e) Vocational numeracy
- f) Recreational numeracy.

3. **Outcome 2** elaborates and describes a four-stage problem-solving cycle that underpins the capabilities required to solve a mathematical problem embedded in the real world.

4. **Outcome 3** requires students to develop and use a technical mathematical toolkit as they undertake their numeracy activities and tasks. Students should be able to confidently use multiple mathematical tools, both analogue and digital/technological.



## Selecting the areas of study and the numeracies

Students will cover the eight areas of study at least once across Units 1 and 2, and across Units 3 and 4 (four areas of study in each unit).

Areas of study are to be selected to support the teaching and learning for each of the six numeracies, as appropriate to the situations and contextual problems being solved. The order in which the areas of study are taught, and how they are combined with other areas of study, is decided by the school and the teachers. This flexibility is an essential aspect of an applied learning approach.

Combinations can be based on the needs and interests of the student cohort and its community, and related vocational and work requirements.

Schools and teachers must make their selection of the areas of study based on the following guidelines:

- Each unit must include three numeracies.
- All six numeracies must be covered across Units 1 and 2 and across Units 3 and 4.

• Select either one or two areas of study to support each selected numeracy (four areas of study are covered in each unit).

## VCE Vocational Major - Numeracy Units 1-4

## UNIT 1

In Unit 1 students will develop their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use of appropriate technologies.

There are four areas of study for Unit 1:

- Area of Study 1: Number
- Area of Study 2: Shape
- Area of Study 3: Quantity and measures
- Area of Study 4: Relationships.

### UNIT 2

In Unit 2 students will develop and extend their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and identification and appropriate selection and use of relevant technologies.

There are four areas of study for Unit 2:

- Area of Study 5: Dimension and direction
- Area of Study 6: Data
- Area of Study 7: Uncertainty
- Area of Study 8: Systematics

### UNIT 3

In Unit 3 students further develop and enhance their numeracy practices to make sense of their personal, public and vocational lives. Students extend their mathematical skills with consideration of their local, community, national and global environments and contexts, and the use and evaluation of appropriate technologies.

The progression of learning is evident in Units 3 and 4 with the development of more complex numeracy and mathematical skills and knowledge, drawing on the knowledge gained from Units 1 and 2.

There are four areas of study in Unit 3:

- Area of Study 1: Number
- Area of Study 2: Shape
- Area of Study 3: Quantity and measures
- Area of Study 4: Relationships.

#### **UNIT 4**

In Unit 4 students further develop, enhance and extend their numeracy practices to make sense of their personal, public and vocational lives. Students extend their mathematical skills with consideration of their local, community, national and global environments and contexts, and use of, evaluation and justification of appropriate technologies.

The progression of learning is evident in Units 3 and 4 with the development of more complex numeracy and mathematical skills and knowledge, drawing on the knowledge gained from Units 1 and 2.

There are four areas of study for Unit 4:

- Area of Study 5: Dimension and direction
- Area of Study 6: Data
- Area of Study 7: Uncertainty
- Area of Study 8: Systematics