Essential Mathematics
Level 1

Overview and Key Features

Years 9 to 12 Learning 2020

The purpose of this paper

The purpose of this paper is to provide information regarding the overview and key features of the proposed *Essential Mathematics Level 1.*

It is designed to enable all interested stakeholders to reflect and provide feedback on key features including learning outcomes, structure, sequencing, and likely content. This feedback will be considered in writing the draft course.

Consultation

Throughout the course development process there will be four opportunities for formal stakeholder consultation:

- Course Scope
- Structural Overview and Key features (Nov/Dec 2020)
- Initial Draft Course (March 2021)
- Final Draft Course (June 2021)

This paper represents the second of four course consultation points for teachers to engage in the course development process for *Essential Mathematics Level 1.*

Course Rationale

The *Essential Mathematics Level 1* course enables students to build the requisite knowledge and skills and the capacity, confidence and disposition to use mathematics to meet the minimum adult numeracy standard as detailed by ACSF Level 3 - numeracy.

This course will promote Mathematics and numeracy learning opportunities that:
- enable learners to interpret everyday practical situations; and
- provide the basis for many informed personal decisions.

This course will also prepare learners with the essential mathematical skills required to enter the workforce and contribute productively in an ever-changing global economy, with both rapid revolutions in technology and global and local social challenges. An economy competing globally requires substantial numbers of proficient workers able to learn, adapt, create, interpret and analyse mathematical information.

Years 9 to 12 Curriculum Framework

Years 9 to 12 Education Framework informs the design of *General Mathematics* course and it fits within the Discipline-based focus area of the Years 9 to12 Curriculum Framework.

Pathways in

The *Essential Mathematics Level 1* course enables learning continuity from: Years 8-10 Australian Curriculum Mathematics and from *Preliminary Mathematics Stage 4.*

Level 1

Learning Outcomes

On successful completion of this course learners will be able to:

- Communicate mathematical ideas, information and arguments purposefully and appropriately
- Use symbolic, formal and technical language and operations
- Apply metacognitive and reflective thinking to individual and collaborative learning experiences
- Select or devise and implement a mathematical strategy to solve problems
- Apply reasoning in order to justify or check justification of ideas, actions and results
- Interpret mathematical concepts and apply associated techniques
- Use mathematics to represent and model real-world situations and problems

Course Structure

Essential Mathematics Level 1 will consist of three compulsory modules that can be studied in any order or through an integrated approach. The three modules are as follows.

Module 1	Module 2	Module 3
Core 1	Core 2	Core 3
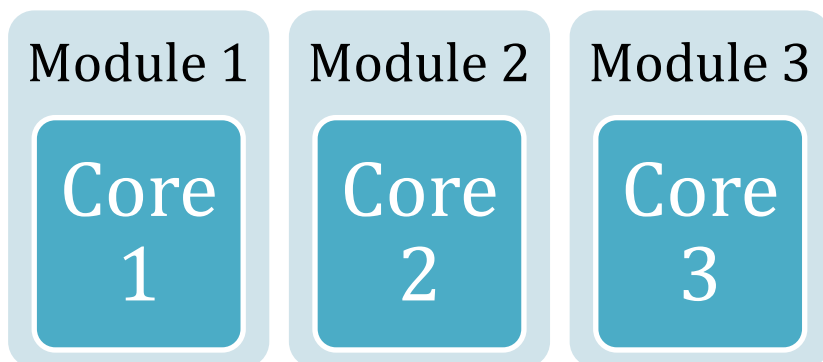
Modules Available

Core 1: Multiplicative Thinking

Core 2: Measurement and Geometric Reasoning

Core 3: Algebraic and Statistical Reasoning

Course Delivery

To be developed through consultation.

Module content

Module 1 - Multiplicative Thinking - including the topics of:

- Whole Number Calculations
- Fractions, decimals and percentages

- Rates and ratios

Module 2 - Measurement and Geometric Reasoning - including the topics of:
- Metric measurement
- Properties of 2D shapes and 3D objects
- Maps and plans

Module 3 - Algebraic and Statistical Reasoning - including the topics of:
- Algebraic expressions and graphs
- Chance
- Data (tables, graphs and charts)

Relationship to possible Future Provision

Focus Area	P	1	2	3	4
DISCIPLINE-BASED			General Mathematics	Mathematical Methods / Specialist Mathematics	
TRANSDISCIPLINARY			History of Mathematics (with HASS)	Applications of Discrete Maths	
PROFESSIONAL STUDIES			Data Science (with Technologies)		
WORK-BASED					
PERSONAL FUTURES	Mathematics	Essential Mathematics	Essential Mathematics		

Note: Subject to ongoing accreditation considerations in line with the Accreditation Framework