

# TEAC 1010 EARLY PRIMARY MATHEMATICS

**Credit Points** 10

**Legacy Code** 102119

**Coordinator** John Ley ([https://directory.westernsydney.edu.au/search/name/John Ley/](https://directory.westernsydney.edu.au/search/name/John%20Ley/))

**Description** The subject is only offered to students enrolled in the Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education program. This subject is designed to extend the development of mathematical concepts, skills and understandings for children from Kindergarten to Year 3 based on the NSW Syllabus for the Australian curriculum Mathematics K-6. An awareness of relevant research and curriculum documents, combined with the practical knowledge of teaching, learning and assessment strategies, will assist teachers to design and implement a series of experiences that will enhance the conceptual knowledge of their students.

**School** Education

**Discipline** Teacher Education: Primary

**Student Contribution Band** HECS Band 1 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 1 subject

**Equivalent Subjects** EDUC 1002 - Early Primary Maths (AREP)

**Restrictions**

Students must be enrolled in 1717 Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education.

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Explain the central concepts, modes of enquiry and structure of Mathematics.
2. Apply the five interrelated processes of questioning, applying strategies, communicating, reasoning and reflecting up to Stage 2.
3. Describe the three content strands of Number and Algebra, Measurement and Geometry, Statistics and Probability, as well as working mathematically up to Stage 2.
4. Apply concepts of assessment and children's learning within the Primary Mathematics curriculum.
5. Utilise a variety of teaching, behavioural and organisational management strategies to cater for the range of diverse learners in Mathematics K-6.
6. Utilise an array of resources designed to meet the needs of diverse K-6 students.
7. Identify Aboriginal and Torres Strait Islander perspectives embedded in the Australian Mathematics curriculum.
8. Design a sequence of two lessons using developing knowledge of the Australian Mathematics curriculum for Primary- aged children.

## Subject Content

1. Nature and role of mathematics in describing and modelling patterns and relationships that can be generalised, and as a means of interpreting the world

2. Familiarity with the NSW syllabus for the Australian curriculum: Mathematics K-6 programming and assessment, such as Count Me In Too
3. Role of concrete materials
4. Working Mathematically through Communicating, Problem Solving, Reasoning, Understanding and Fluency
5. Importance of Language for communicating (Newman's Analysis)
6. Counting strategies in preschool and Kindergarten
7. Place value through grouping in the Hindu-Arabic numeration system
8. Number and Algebra - the four operations, fractions and decimals, patterns
9. Play, games, investigation, problem solving, stories in Mathematics
10. Early measurement and using units (formal and informal ) for length, area, volume and capacity, mass and time, and comparing, ordering and estimating size
11. Early geometry - 2 and 3 D shapes, manipulating shapes, part/ whole relationships, tessellations, transformations, location
12. Statistics: working with data, including planning, gathering, organising, applying data to solve problems and communicating results through the selection of appropriate representations.

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

| Type              | Length      | Percent | Threshold | Individual/ Group Task | Mandatory |
|-------------------|-------------|---------|-----------|------------------------|-----------|
| Case Study        | 1,500 Words | 50      | N         | Individual             | Y         |
| Professional Task | 1,500 Words | 50      | N         | Individual             | Y         |

Prescribed Texts

- Booker, G. (2010). Teaching primary mathematics (4th ed.). Frenchs Forest, Australia: Pearson Australia.
- NSW Board of Studies. (2012). NSW Syllabus for the Australian Curriculum: Mathematics K-10 syllabus (K-6 section). Sydney, Australia: NSW Board of Studies. Retrieved from <http://syllabus.bos.nsw.edu.au/download/>.