

TEAC 2052 SCIENCE AND TECHNOLOGY

Credit Points 10

Legacy Code 102123

Coordinator Terrence Wright ([https://directory.westernsydney.edu.au/search/name/Terrence Wright/](https://directory.westernsydney.edu.au/search/name/Terrence%20Wright/))

Description This unit is designed to introduce the NSW Syllabus for the Australian Curriculum: Science K-10 (incorporating Science and Technology K-6), with a focus on K-2. The significance of children's views is emphasised in the selection, design and sequencing of activities for primary students in the development of science and technology experiences. Scientific concepts are considered in the context of distinct but related science and technology areas of built environments, information and communications, living things, natural phenomena, products and services, and Earth and its surroundings. Relevant science and technology content, together with strategies useful in developing primary science and technology knowledge, understandings, skills, processes, values and attitudes will be explored. The tutorials and assignments are designed to place student teachers in situations where they can focus on themselves as learners and to reflect on the implications of their learning and the learning of others in their future professional practice.

School Education

Discipline Teacher Education: Primary

Student Contribution Band HECS Band 1 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Equivalent Subjects EDUC 2006 - Science and Technology 1

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 central concepts in science and technology and understandings of the processes of investigating, designing and making and using technology K-2.
2. Demonstrate research-based knowledge of the pedagogies appropriate for science and technology education in primary schools.
3. Apply appropriate strategies to create a positive environment supporting student effort and learning and to engage students as well as address student needs when implementing learning experiences in science and technology.
4. Design and implement learning experiences that demonstrate an in-depth knowledge of the NSW Syllabus for the Australian Curriculum: Science K-10 (incorporating Science and Technology K-6) and focussing on K-2.
5. Identify and articulate clear learning goals in preparing learning experiences for science and technology education that are appropriate for the cognitive, social and language abilities of students in primary schools.

6. Plan and implement coherent lessons, lesson sequences, scope and sequences that are designed to engage students and improve learning outcomes in science and technology K-2.
7. Utilise knowledge of a range of resources appropriate to science and technology education.
8. Engage in teamwork for the purposes of an investigation, the production of a designed and made artefact and, the presentation of a discussion about the process.

Subject Content

1. The nature of science and technology as disciplines and the strategies of investigating, designing and making and using technology?f K-2
2. The nature of Science and Technology K-6 (NSW Syllabus for the Australian Curriculum), Its outcomes for Skills: (Working Scientifically, Working Technologically), Knowledge and Understanding Strands (Natural Environment, Made Environment), Knowledge and Understanding Substrands (Physical World, Earth and Space, Living World, Material World, Built Environments, Information, and, Products).
3. Affective issues in science and techn

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.

Item	Length	Percent	Threshold	Individual/ Group Task
Professional Task	1,500 words	30	N	Individual
Group investigation of an artefact based on an agreed theme including design parameters. Individuals will present their made artefact based on the group investigation.	15 minutes	30	N	Group
Professional Task	1,500 words	40	N	Individual

Prescribed Texts

- Skamp, K., & Preston, C, M.(ed) (2018) (6th Ed.) Teaching primary science constructively (6th ed.) South Melbourne, Vic: Cengage Australia, 2018.
- NSW Syllabus for the Australian Curriculum: Science K-10 (2012). (incorporating Science and Technology K-6)

Teaching Periods

2nd Half

Bankstown

Day

Subject Contact Shirley Gilbert ([https://directory.westernsydney.edu.au/search/name/Shirley Gilbert/](https://directory.westernsydney.edu.au/search/name/Shirley%20Gilbert/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=TEAC2052_22-2H_BA_D#subjects)