

APPLICABLE TO	All primary Catholic schools in the Diocese of Maitland-Newcastle
DOCUMENT OWNER	Catholic Schools Office – Teaching and Learning Services
APPROVAL DATE	January 2019
APPROVED BY	Head of Teaching and Learning Services
SCHOOL ACTIONS	System policy: Schools are to ensure their practices are consistent with this policy. A local policy is not required.
LAST REVIEW DATE/S	New document
NEXT REVIEW DATE	December 2021
RELATED DOCUMENTS	Assessment K–12 Policy 2017 Programming K–12 Policy 2016 Reporting K–12 Policy 2017 Science and Technology K–6 Syllabus KLA Procedure 2018

Purpose

The purpose of this Science and Technology Policy is to present clear guidelines for acceptable and consistent practice in the teaching of Science and Technology and to support teaching staff in implementing the NSW Science and Technology K–6 syllabus within the Diocese of Maitland-Newcastle.

Policy Statement

Science and Technology K–6 is an integrated discipline that fosters in students a sense of wonder and curiosity about the world around them and how it works. Science and Technology K–6 encourages students to embrace new concepts, the unexpected and to learn through trialling, testing and refining ideas.

The study of science and technology develops the building blocks of inquiry and students' abilities to solve problems. Students are provided with opportunities to develop understanding based on evidence and reason. These skills enable students to participate responsibly in developing innovative ideas and solutions in response to questions and situations relevant to personal, social and environmental issues. The learning students experience enables them to contribute to the world as active global citizens both now and in the future.

Science and technology are pedagogically linked and through their practical application promote genuine learning opportunities for students. The application of Working Scientifically, and Design and Production skills enables students to develop a sense of accomplishment and enhance their skills in inquiry and manipulating tools and materials to produce solutions. These skills are important in preparing students to succeed in a rapidly developing technological world.

Students studying science and technology are encouraged to question and seek solutions to problems through collaboration, investigation, critical thinking and creative problem-solving. Students are provided with opportunities to apply thinking skills and develop an appreciation of the processes they can apply as they encounter problems, unfamiliar information and new ideas. These attributes are fundamental to the development of students who use evidence to make decisions and solve problems.

Science and Technology K–6 provides students with the opportunity to make meaningful connections with the broader learning outcomes of the K–6 curriculum in English, Mathematics, History, Geography, Creative Arts, Languages and PDHPE through authentic application of relevant knowledge and acquired skills.

Science and Technology K–6 develops students' curiosity about natural phenomena and the built environment. It provides students with the opportunity to develop a sense of achievement by using the practical application of knowledge in the development of solutions. The skills and capabilities developed through the study of science and technology provide students with opportunities for skill development and a strong foundation for learning across the K–10 curriculum.

(NSW Science and Technology K-6 Syllabus Rationale, p.12)

Definitions

The Glossary of Terms located in the NSW Science and Technology K–6 Syllabus is to be used as the primary source for defining and interpreting elements of the syllabus.

Scope

This policy applies to all primary schools and system personnel in the Diocese of Maitland-Newcastle and is read in conjunction with the Procedure document.

Guiding Principles

The NSW Science and Technology K–6 Syllabus (2018) is reflected in all K–6 primary schools scope and sequence documents and teaching programs across the Diocese of Maitland-Newcastle.

Science and Technology is timetabled for 6–10% (90–120min) per week (or equivalent across a semester).

Assessment in Science and Technology aligns with the Maitland-Newcastle CSO Assessment Policy (2017) and the individual school Assessment Policy.

Reporting in Science and Technology aligns with the Maitland-Newcastle CSO Reporting Policy (2017) and the individual school Reporting Policy.

The study of Science and Technology in K–6 enables students to explore scientific and technological concepts and develop knowledge and understanding of the world; enabling them to inquire, plan, investigate and develop solutions to problems. Through the application of Working Scientifically, and Design and Production skills, students develop an interest in and an enthusiasm for understanding nature, phenomena and the built environment.

(NSW Science and Technology K–6 Syllabus Aim, p.14)

SKILLS

Students develop and apply skills in:

- scientific inquiry through the process of working scientifically
- design and production processes in the development of solutions
- design and production of digital solutions.

KNOWLEDGE AND UNDERSTANDING

Students develop knowledge and understanding of:

- the natural world including living things, materials, forces, energy, and Earth and space

- the built environment including engineering principles and systems, food and fibre production, and material technologies
- digital technologies including digital systems and how digital technologies represent data.

VALUES AND ATTITUDES

Students:

- value the importance and contribution of science and technology in developing solutions for current and future personal, social and global issues and in shaping a sustainable future
- appreciate the importance of using evidence and reason to engage with and respond to scientific and technological ideas as informed, reflective citizens
- value developing solutions to problems and meeting challenges through the application of Working Scientifically, and Design and Production skills.

(NSW Science and Technology K–6 Syllabus Objectives, p.15)

Responsibilities

CSO TEACHING AND LEARNING

Teaching and Learning Services are responsible for:

- Reviewing and amending the current policy and procedures as required
- Advising schools of changes made to the current policy and associated documentation
- Providing advice to schools on Programming, Reporting and Assessment in Science and Technology as required
- Ensuring syllabus implementation is in accordance with the NSW Education Standards Authority (NESA) school registration and accreditation processes.

SCHOOL PRINCIPALS

The Principal is responsible for communicating this policy and procedure to all teachers in the school. If this policy is adapted for an individual school, the Principal is responsible for the writing, approval, implementation and dissemination of the policy and any associated procedures or guidelines.

TEACHING STAFF

All Teaching Staff are responsible for programming, assessing and reporting the NSW Science and Technology K-6 Syllabus (2017).

Review

The policy is managed by the Catholic Schools Office Teaching and Learning Services and will be routinely reviewed every three years or sooner in the event a new syllabus document is released.

Budget

Appropriate funds will be allocated from the school budget to allow for the successful teaching of Science and Technology.

Legislative/Professional Guidelines

NSW Science and Technology K–6 Syllabus (NESA)