



St. Joseph's Primary School

SCIENCE & TECHNOLOGY POLICY 2011

RATIONALE

St. Joseph's Primary School Merriwa honours its commitment to quality Catholic education through its provision of high quality educational programs by which each child is enabled to reach their full potential.

(adapted from the school vision statement)

Science and technology are integral parts of the modern world. Dramatic and rapid change in these areas is a basic fact of life for all students. For personal, social, environmental and economic reasons, young people must be well equipped to be active participants in our scientific and technological society.

The Science & Technology syllabus provides learning experiences in the areas of science and technology which will assist in meeting the needs of both students and the wider community. The focus is on enquiry and problem solving through first hand experiences.

Science and Technology are closely related. The nature of this relationship can vary depending upon the particular learning experiences:

Science involves;

- investigating
- first hand experiences
- problem solving
- clarifying understandings

Technology involves;

- designing and making
- investigating
- first hand experiences
- problem solving
- technological activity

As expressed in the Board of Studies Foundation Statement 2005 the four broad strands of Science and Technology are:

- 🌐 Investigating Scientifically
- 🌐 Designing and Making
- 🌐 The Natural Environment
- 🌐 The Made Environment

Which encompass the following content substrands

- Built Environments
- Information and Communication
- Living Things
- Physical Phenomena,
- Products and Services
- Earth and Surroundings

AIMS

- To develop in students, competence, confidence and responsibility in their interactions through Science and Technology.
- To encourage students to be active, flexible and creative learners.
- To foster enthusiasm in further learning of Science and Technology.
- To equip students with the ability to pose and solve problems, using a range of strategies.
- To raise the consciousness of students in respect of environmental issues.
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CATHOLIC DIMENSION:

As followers of Christ and people made in the image and likeness of God, students must truly value who they are and feel empowered to develop and become the people God wishes them to be. The ability of young people to value themselves and their environment as they grow and mature is a true reflection of the value and love God holds for all people.

Relationships with the people, the places, events and the things of this world are an essential part of students' growing understanding of themselves. The realisation of one's potential, demands a commitment to learning about the people, events and things of our world. In them, we believe, God may be found.

Our faith is found in all that we teach and learn and God's hand is clearly evident in our past, our present and our future.

IMPLEMENTATION

Procedures

Teachers are responsible for the implementation of the Science and Technology Syllabus K – 6 in class. At St Joseph's class teachers will encourage the development of confidence, competence and understanding of our environment through experimentation, research and investigation.

The school's scope and sequence will be followed to ensure specific content is covered. Each class will cover at least one unit per term.

A variety of teaching and learning styles will be employed to facilitate learning and to effectively meet the varied needs of the children in each class i.e. Bloom's Matrix, group work, learning centres.

Teachers are to integrate, in units of work, opportunities for children to develop their ICT skills in this KLA. Parents with experience are invited to assist staff and students with computers and other areas of Science and Technology. Teachers will plan to integrate the teaching of HSIE with Science and Technology wherever possible and technical words related to the given unit will be taught as part of spelling component in English lessons. There will be a planned correlation between the text type used in S&T and that which is being taught in English also.

Students have the opportunity to sit for external tests i.e. UNSW Science Test. Teachers may also from time to time organise incursions and excursions that complement their units of work.

Resources

The Science and Technology K – 6 Syllabus and its support documents will provide the basis of implementation of policy aims.

Units are supported by a range of library titles, both non-fiction and fiction, specifically selected by the teacher.

Time allocation

It is expected that an appropriate amount of time each week be allocated specifically for the teaching of this KLA (between 1 hour 25 minutes and 2 hours 40 minutes) to total 6% to 10% teaching time allocation.

Assessment

Assessment and evaluation procedures determine the nature of student learning provided to achieve the competencies outlined by Board of Studies syllabus outcomes (linked to the K-6 Foundation Statements).

Assessment will involve the on-going monitoring of student achievement in the development of knowledge and skills and a wide range of strategies, both formal and informal, will be used. These include:

- observation,
- listening
- interviews
- explanations
- conferencing,
- discussion,
- questioning,
- analysis of work samples,
- student self-assessment,
- the application of standardised test instruments.

Differentiated tasks and assessment strategies must be included to cater for the diverse needs of students.

Achievement in S&T and application and effort will be reported to parents each semester via school reports and interviews when necessary.

Personnel

- Class teachers who are responsible for teaching, assessing and writing units of work.
- Community members and parents who have specific skills.

BUDGET

Appropriate funds will be allocated annually from the school budget to allow for the successful implementation of the school based scope and sequence. Staff will prioritise the purchase of resources that are necessary to effectively implement the Science and Technology Syllabus and units of work.

EVALUATION

This policy will be evaluated every three years by staff, or sooner if the need arises and reviewed at the beginning of each school year.

This policy will be evaluated when the National Curriculum is implemented:

The Scope and Sequence attached is currently followed by all teachers and suits the Stage based arrangements of the classes. The nature of the school is such that the composition of classes changes from time to time and the Scope and Sequence must change to reflect this.