SCIENCE & TECHNOLOGY POLICY
1. SCHOOL VISION AND MISSION STATEMENT

SCHOOL VISION
We the Christian staff of St. Mary's Primary School, Young, believe that our school is a place where:

- The whole school community should strive to live out Gospel values...
- It is recognised that parents are the prime educators of their children and therefore an environment is provided whereby parents can make a valuable contribution to school life...
- Teachers and parents have the opportunity to work together for the development of the children...
- A climate of prayer is encouraged and where Christian values such as love, trust, faith, truth and justice are integral parts of the lives of the children...
- The individuality of all children is recognised, valued and nurtured...
- We encourage the development of the children's talents and gifts by offering challenges which will help the children attain academic, spiritual, cultural and sporting goals appropriate to their ability...
- Opportunities are provided for children to develop self-discipline and respect for others...
- Realistic participation in worthwhile community activities is encouraged.

St Mary’s Mission Statement

“Following the example of Mary, our Mother we strive for the growth of each individual through excellence in Catholic Education in a spirit of love and service”.

In accordance with the St Mary’s School Vision and Mission Statement, our Science and Technology policy recognizes that:

- The study of Science and Technology involves the students experiencing and using the processes of investigating, designing, making and using technology. Science is approached through observing, measuring, classifying, questioning, experimenting, predicting, planning, recording, communicating and formulating conclusions. Skill development is based on practical, hands on experiences and directed at the child’s level of development. *(Primary Connections, 2008).*
- We the teachers of St Mary’s Primary School, recognize the nature of the learner and the needs of the diverse learning group. We aim to foster in our school community, justice, peace and the development of self and others.
- We aim to create in our students an awareness of being called to improve society, just as Jesus did, by helping students to operate flexibly, autonomously and responsibly.
- We seek to develop within students positive feelings towards themselves, other
people and the environment, by inspiring an awe of God’s creation and an understanding of themselves as unique persons, with a responsibility to protect and nurture the environment.

The Science program at St Mary’s is based on Primary Connections units. The science program incorporates the Quality Teaching Framework (QTF). The QTF provides a consistent pedagogical framework within which all NSW teachers and schools can operate.

2. EXIT OUTCOMES

Children completing their education at St. Mary’s Young will have been given the opportunity to be:

SPIRITUALLY ALIVE
- prayerful
- know about God and His relationship with themselves and others.
- hopeful
- gain an understanding of Catholic traditions, values and teachings
- witnesses of their faith
- unique creations of God

HEALTHY
- physically active
- appreciative of themselves and their abilities
- responsible for choosing what is best for them
- productive users of leisure time including relaxation
- decision makers who can choose healthy options to enhance a healthy lifestyle and good well being.

INDEPENDENT PEOPLE
- creative
- critical thinkers
- risk takers
- researchers
- problem solvers
- recognisers of own strengths and weaknesses

SKILLED COMMUNICATORS
- orally
- in written language
- critical interpreters of visual media
- socially
- technologically

WELL BALANCED
- joyful
- cooperative
- secure
decision makers
interested
tolerant
achieving

RESPONSIBLE
community members
in school and home environments
towards others
for actions
interdependent citizens
for their lives and able to contribute to the society in which they live

CARETAKERS OF THE ENVIRONMENT
appreciation of and responsibility for the natural environment
knowledgeable
actively aware
in harmony with our environment

As a result of seven years of primary schooling at St Mary’s the students should have:

Knowledge and understanding of:
Biological science (PC)
Chemical science (PC)
Earth and space science (PC)
Physical science (PC)
An inquiry approach to learning. Students’ questions become the focus for student-planned investigations and the basis for developing scientific explanations. *(Primary Connections, 2008).*
Questioning and predicting: Identifying and constructing questions, proposing hypotheses and suggesting possible outcomes.
Planning and conducting: Making decisions regarding how to investigate or solve a problem and carrying out an investigation, including the collection of data.
Processing and analysing data and information: Representing data in meaningful and useful ways; identifying trends, patterns and relationships in data, and using this evidence to justify conclusions.
Evaluating: Considering the quality of available evidence and the merit or significance of a claim, proposition or conclusion with reference to that evidence.
Communicating: Conveying information or ideas to others through appropriate representations, text types and modes. *(ACARA Australian Curriculum, Assessment and Reporting Authority.)*

Skills/Science Inquiry Skills to:
Consider different points of view and develop solutions to problems.
Share knowledge, ideas and experience.
Develop social skills of sharing, leading, communicating, building trust and managing conflict.
Place in context “a range of contemporary and sensitive issues from a Catholic
perspective”. (Treasures New and Old Core Document 926).

- Develop an understanding of the subject-specific vocabulary and design features of genres of science.

Values and attitudes:
- Towards themselves so that the children will grow in self-worth and integrity
- Towards others with a tolerance and understanding of other cultures
- Towards science and technology where they understand, appreciate and preserve our environment.
- Towards the connection of science to students’ everyday lives and local communities.

Through the interaction with the above content strands and values students will have had the opportunity to engage in the learning processes of Science and Technology. “They will be provided with opportunities to develop a moral sensitivity and a heightened capacity to distinguish between what is life giving and what is dehumanising.” (Treasures New and Old Core Document.p24).

3. RATIONALE

Science provides an empirical way of answering interesting and important questions about the biological, physical and technological world. The knowledge it produces has proved to be a reliable basis for action in our personal, social and economic lives. Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world through exploring the unknown, investigating universal mysteries, making predictions and solving problems. (ACARA Australian Curriculum, Assessment and Reporting Authority.)

At St Mary’s students will be encouraged to address community values and be responsive to local community concerns. We at St Mary’s accept that Science is not just a body of knowledge but is also a process of investigation. “Science seeks to be objective none the less, as a human endeavour it is affected by human values”. (P1 Science and Technology Syllabus and Support Document.)

The students will be encouraged to interact with the world around them through developing knowledge, concepts and skills which incorporate observation, systematic analysis and careful recording of information gathered.

Primary Connections is based on an inquiry-orientated teaching and learning model where students have the opportunity to represent and re-represent their developing understanding. (Primary Connections, 2008).

Teaching and learning progresses through (5 E’s) five phases: Engage, Explore, Explain, Elaborate and Evaluate.

- Engage: Engage students and elicit prior knowledge.
- Explore; Provide hands-on experience of the phenomenon.
- Explain: Develop scientific explanations for observations and represent developing conceptual understanding.
- Elaborate: Extend understanding to a new context or make connections to additional concepts.
- Evaluate: Students re-represent their understandings and reflect on their learning journey.
As students move through the process of inquiry, they can draw on several ways of investigating and expressing their growing understandings – integrating skills and content from multiple disciplines or learning areas.

Inquiry learning emphasises process as well as product, moving away from the acquisition of facts to the development of understandings about concepts and generalisations. Inquiry learning develops students’ investigative and thinking skills and contributes to their ability to participate effectively in society. It can also contribute to enhancing self-esteem by encouraging students to take responsibility for their own learning.

AIMS
The aim of Science & Technology at St. Mary’s is to develop students’ competence, confidence, social skills and responsibility in their interactions in this K.L.A. leading to:

- An enriched view of themselves, society, the environment and the future
- An enthusiasm for further learning of Science and Technology
- Providing opportunities for them to develop independent rational thought and responsible actions.
- Engage in learning experiences that will enable them to develop positive and informed values and attitudes.
- Provide students with opportunities to explore the way science is used in the real world and develop students’ scientific literacy as they come to understand and appreciate the way science influences society. (Primary Connections, 2008).

4. ACROSS CURRICULUM PERSPECTIVES

As a Catholic School we value all members of the community. Teachers at St Mary’s endeavor to address ‘across curriculum perspectives’ where pertinent within their daily teaching programme.

CATHOLIC ETHOS
At St. Mary’s we believe that our Catholic Ethos should permeate all that we do. Therefore teachers:
- Reflect Gospel values through all facets of the classroom.
- Use Science and Technology to explore the Gospel message.
- Encourage the children to respect the work of others.
- Provide different opportunities for individual students to express their thoughts, feelings and spirituality.
- Emphasise a reverence of life in all of its forms.

ABORIGINAL AND TORRES STRAIT ISLANDER PERSPECTIVE
At St. Mary’s we believe that through Science and Technology all students can gain an appreciation, respect and sensitivity for Indigenous Australians. Therefore teachers:
- Should recognize the nature of the learner and the needs of the learner group.
- Provide opportunities to gain an appreciation and respect for the uniqueness of culture within Indigenous groups.
- When incorporating Aboriginal and Torres Strait Islander perspectives in units of...
work, should ensure that such perspectives are accurate and do not stereotype.

The Primary Connections Indigenous perspective framework is based on national research findings and collaboration with Aboriginal and Torres Strait Islander groups, cultural consultants, Indigenous education and linguistic experts and other stakeholders. The framework acknowledges peoples’ differing worldviews and the diversity of perspectives that are the reality of Australian classrooms. It aims to accelerate science and literacy learning outcomes for Indigenous students and increase non-Indigenous students’ and teachers’ awareness and understanding of Indigenous perspectives. (Primary Connections, 2008).

AUSTRALIAN EDUCATION

At St. Mary’s we believe that the students need to learn all that is necessary to be active and informed citizens in their own society and country. Therefore teachers:

- Need to provide an environment where the students are able to value their own background and experiences.
- Explore natural and cultural influences on the development of investigating, designing and making processes and the use of technology.

ENVIRONMENT EDUCATION

At St. Mary’s we believe that Science and Technology provide avenues for students to appreciate, understand and learn more about the environment. Therefore teachers:

- Foster enjoyment, understanding and appreciation of the fragility, diversity and beauty of life on earth.
- Programmes developed from Primary Connections enable students to engage in the processes of the 5 E’s inquiry learning and design and making with the intention to preserve our environment.
- By investigating different environments, encourage students to learn about the impact of human activity on environments and how environments affect human behaviour.

GENDER EQUITY

At St. Mary’s Gender Education is about excellence in the schooling for all individual students. Therefore teachers should:

- Establish a cooperative learning environment that allows all students to experience success
- Provide opportunities for active participation encouraging student’s expression of individual thoughts, feelings and opinions.
- Recognise, value and address the differing interests and experiences of all students.
- Research and acknowledge the gender roles of both males and females throughout the history of Science and Technology, noting significant role models from both genders.
- Ensure that the needs, interests and experiences of all students are catered for when choosing curriculum content.
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

At St. Mary’s we believe that ICT plays an important role in the acquisition of information for Science and Technology. ICT competence is evident in science, particularly in Science Inquiry Skills. Information technologies are used to research science concepts and applications; digital technologies such as logging and spreadsheet software are used to collect, analyse and report on data. ICT enables students to use and analyse results efficiently and develop valid conclusions, and also allows access to other potential areas for investigation. (ACARA Australian Curriculum, Assessment and Reporting Authority.)

Therefore teachers:
- Provide opportunities for students to develop skills that enable them to acquire information.
- Provide opportunities for students to use technology for the purpose of collecting, storing and organising data to assist in solving problems.
- Use a variety of sources such as the interactive whiteboard, internet, e-mail, reference texts, artifacts, original sources, archives, computer technology, digital cameras, telecommunications, people and the media.
- Develop students’ understanding of the interaction of technology in society at regional, national and global levels.

LITERACY DEVELOPMENT

At St. Mary’s we believe that literacy plays an important part in obtaining and retaining information in Science and Technology. Primary Connections develops the literacies of science that students need to learn to represent their understanding of science concepts, processes and skills. (Primary Connections, 2008). Therefore teachers:
- Provide a variety of reading strategies to gather information for appropriate topics.
- Enable students to explore different text types through reading, viewing, writing, listening to and talking about a range of subject matter when investigating, designing and making.
- Engage in collaborative group work opportunities which will allow them to develop confidence and competence in using language.
- Integrate learning subject-specific language with various design features of text types. E.g. text, tables, graphs, drawings and models. (Primary Connections, 2008).

MULTICULTURAL

At St. Mary’s we recognise that the fundamental aspects of culture can be explored through Science and Technology. Studies through Science and Technology enable students to develop intercultural understanding as they learn to understand themselves in relation to others. This involves students valuing their own cultures and beliefs and those of others, and engaging with people of diverse cultures in ways that recognise commonalities and differences, create connections and cultivate respect between people. (ACARA Australian Curriculum, Assessment and Reporting Authority.)

Therefore teachers:
- Enable students to develop an understanding about themselves as both individuals
and members of groups. Allowing them to identify and appreciate human similarities and differences.

- Develop the student’s acceptance that culture is transmitted by the shared understandings and practices of various groups based on language, religion and beliefs system, education, moral and ethnic codes, the arts, symbols, customs, rituals and practices.
- Encourage in students a tolerance of all cultures and to consider their differences, particularly, when resolving moral dilemmas associated with scientific and technological issues.

**LEARNING SUPPORT**

At St. Mary’s the outcomes of special needs perspective emphasise the ability of students with a wide range of individual differences to participate and succeed in many aspects of learning.

The science curriculum at St Mary’s offers flexibility for teachers to tailor their teaching in ways that provide rigorous, relevant and engaging learning and assessment opportunities for students with special education needs. Most students with special education needs can engage with the curriculum provided the necessary adjustments are made to the complexity of the curriculum content and to the means through which students demonstrate their knowledge, skills and understanding. *(ACARA Australian Curriculum, Assessment and Reporting Authority.)*

Therefore teachers:

- Will build upon the students’ experiences and skills.
- Enhance self-esteem by enabling students to develop competencies.
- Vary assessment procedures in recognition of individual differences.
- Encourage independence in learning.
- Teach elementary organisational skills and processes.
- Are aware of the supplementary resources available for specific requirements.
- Will address all students’ individuality catering for the multiple intelligences.
- Recognise that students’ learn in different ways and at different rates.
- Engage in interactive ‘hands-on’ problem solving activities.

**WORK EDUCATION**

At St. Mary’s we believe that work education helps students make informed decisions about school and post-school options by developing their skills, attitudes and knowledge. Therefore teachers:

- Include discussions and opportunities to examine the occupations and training of people who work in Science and Technology.
- Encourage students to discuss with visiting scientists and technology experts what their work involves.
- Are encouraged to utilize the skills of parents and members of the local community.

**GLOBAL PERSPECTIVES**

At St. Mary’s we believe that Global Perspectives play an important role in the understanding that we live in an inter-dependent world. Therefore teachers:
• Provide opportunities for students to develop an understanding of Australia’s links with the rest of the world and the role that it plays in the world.
• Provide opportunities to develop investigating, predicting and designing skills.
• Encourage emphasis on the future, the dynamic nature of human society, and each person’s capacity to choose and shape futures.
• Provide opportunities to explore important themes such as change, interdependence, identity and diversity, rights and responsibilities, peace building, poverty and wealth, sustainability and global perspectives.

SOCIAL JUSTICE PERSPECTIVES
At St. Mary’s we feel that social justice is very important in ensuring that the individuality of each student is recognised, valued, nurtured and respected. Therefore teachers:
• Develop knowledge that each individual has certain rights and responsibilities.
• Encourage collaborative teamwork within their classrooms.
• Offer positive role models of fairness and justice.
• Ensure that teaching and learning strategies provide equality for learners and are appropriate to their requirements.
• Encourage the development of a positive attitude towards diversity and difference, a willingness to learn from the experience of others and respect for the rights of all to participation and expression.
• Foster the development of an appreciation of and concern for the environment, a sense of personal responsibility to act in environmentally responsible ways and a commitment to sustainable practices.

FUTURES PERSPECTIVES
At St. Mary’s in Science and Technology we aim to provide students with the knowledge, values and skills that they can use to create sustainable futures. Therefore teachers:
• Encourage flexibility so that the children can handle and cope with change.
• Develop an awareness of where we have come from and the possibilities for the future.
• Encourage planning and research skills to handle future situations. Developing skills such as predicting, forecasting, exploring, planning, anticipating and incorporating the use of global technology.
• Place an emphasis on the future, the dynamic nature of human society, and each person’s capacity to choose and shape preferred futures.
• Provide opportunities to develop positive and responsible values and attitudes, important skills and an orientation to active participation.
The presence of these perspectives across all learning areas assists all students to develop knowledge, skills, attitudes and behaviours in areas that are important to their successful participation in society.

5. OUTCOMES
St. Mary’s Science and Technology Policy and Programs are directly linked to Primary Connections.

Primary Connections and the Australian Curriculum
The science content includes the three strands of Science Understanding, Science Inquiry.
**Skills** and *Science as a Human Endeavour*. The three strands of the curriculum are interrelated and their content is taught in an integrated way.

**Science Understanding**

**Biological sciences**
- Living things have basic needs, including food and water

**Chemical sciences**
- Objects are made of materials that have observable properties

**Earth and space sciences**
- Daily and seasonal changes in our environment, including the weather, affect everyday life

**Physical sciences**
- The way objects move depends on a variety of factors, including their size and shape

**Science as a Human Endeavour**

**Nature and development of science**
- Science involves exploring and observing the world using the senses

**Use and influence of science (Years 1 to 6)**

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples’ lives

Scientific knowledge is used to inform personal and community decisions

**Science Inquiry Skills**

**Questioning and predicting**
- Respond to questions about familiar objects and events

**Planning and conducting**
- Explore and make observations by using the senses
Processing and analysing data and information

- Engage in discussions about observations and use methods such as drawing to represent ideas

Communicating
- Share observations and ideas.

6. COURSE DESCRIPTION
At St Mary’s Primary Connections units are used for teaching and learning in Science and Technology. The Primary Connections units are aligned with the rationale and aims of the Australian Curriculum for Science. It will support its national implementation by continuing to provide an innovative, inquiry-based program linking the teaching of science with literacy. The new NSW Board of Studies Science Syllabus which is to be released in 2013 will be guided by the Australian Curriculum requirements.

All teachers then plan and program units of work using the outcomes and indicators directly from the Primary Connections Units.

TIME ALLOCATION
It is expected at St Mary’s Primary School, that Science and Technology be taught for approximately:
- Early Stage 1 - 40 minutes - 60 minutes – per week.
- Stage 1 - 40 minutes - 60 minutes – per week.
- Stage 2 - 60 minutes – per week.
- Stage 3 - 60 minutes – per week.

In addition to this time each Class has an allocated time to go to the Computer Lab each week where they have access to all Computer Resources.
- Early Stage One – _pprox.. 30 – 40 minutes per week
- Stage One – _pprox.. 45 – 50 minutes per week
- Stage Two and Three – _pprox.. 45 – 60 minutes per week

Teachers and students also utilize the laptops and other computers within their classroom.

7. SCOPE AND SEQUENCE
- In addition to the Content Focus Teachers will choose appropriate Learning Processes and Primary Connections units and their current state of alignment with the Australian Curriculum.
<table>
<thead>
<tr>
<th>Year</th>
<th>Biological sciences</th>
<th>Chemical sciences</th>
<th>Earth and space science</th>
<th>Physical science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>What’s it made of?</td>
<td>On the move.</td>
<td>Staying alive,</td>
<td>Weather in my world</td>
</tr>
<tr>
<td>Year 1</td>
<td>Schoolyard safari.</td>
<td>Spot the difference.</td>
<td>Up, down and all around. Dec 11</td>
<td>*Sounds sensational.</td>
</tr>
<tr>
<td>Year 2</td>
<td>Growing and changing. Sep 11</td>
<td>All mixed up. Dec 11</td>
<td>Water works</td>
<td>*Push pull</td>
</tr>
</tbody>
</table>

**Curriculum Focus: Awareness of self and the local world.**

**Year 3**
- Feathers, fur or leaves?  
- Runny or not. Sep 11
- *Spinning in space.*
- Heat. Sep 12

**Year 4**
- *Plants in action.*  
- *Material world/Package it better.*
- Buried in time. Sep 11
- Smooth moves

**Year 5**
- *Light fantastic*
- Earth’s place in space. Dec 11
- Adaptations. June 12
- Solids liquids gases. Sep 12.

**Year 6**
- Marvellous micro-organisms.
- Change detectives.
- Earthquake explorers
- Its Electrifying & Essential Energy

- In addition to the content focus teachers will choose appropriate learning processes and Value Outcomes for each individual unit that is programmed.

**8. AGREED PRACTICE FOR TEACHING AND LEARNING**

Our aim at St. Mary’s is to plan units of work in Science and Technology which follow sequentially across the stages and integrate with other key learning areas, where possible. Teachers at St Mary’s, programme teaching and learning outcomes and indicators from the *NSW Board of Studies Syllabus of Science and Technology*.

We at St. Mary’s agree that in our teaching and learning we will engage students in:

- Developing their knowledge and understanding of appropriate Content strand areas
- Developing investigating, designing and making, reporting and recording and using technology skills.
• Encourage ‘Hands-on’ experiences to compliment other teaching and learning strategies.
• Promote participation in Environmental activities – For example: Clean up Australia, Tidy Towns, class clean up areas.

St. Mary’s offers the students the opportunity to participate in:
• University of NSW Science and Technology Competition (Years 3 – 6)
• University of NSW Computer Skills Competition (Years 3 – 6)
• School Excursions
• Regular access to Computers, including software programs and the internet (Allocated class time and lunch time).

An invaluable resource regarding Teaching and Learning Strategies is the Archdiocese of Canberra and Goulburn Treasures New and Old Religious Education Curriculum Teaching Strategies Resource Book. A variety of strategies are detailed in this book, which are well suited or can be adapted to Science and Technology.

Again, additional information can be found in the statements about Teaching and Learning of all individual Key Learning Areas, located in St. Mary’s Policy and Procedure Manual.

9. ASSESSMENT

Assessing is the process of collecting, analysing, and recording information about student progress towards achievement of Outcomes and Indicators. Assessment is carried out in order to determine the effectiveness of teaching and learning. Assessment is embedded and ongoing to enhance learning. Assessment data is collected through diagnostic, formative and summative assessment strategies.

At St Mary’s we believe that assessment:
• Should be related to the syllabus content and be based on the syllabus outcomes and indicators, which specify what students know, understand and are able to do in Science and Technology.
• Procedures should relate to the knowledge and skills that are taught within the Science and Technology programme.
• Should accurately reflect the students’ capabilities.
• The attitudes and values being demonstrated.
• Should recognise and value the diverse backgrounds and experiences of the students.

We also believe that:
• All teaching and learning activities provide opportunities for assessment of student knowledge and understanding, skills, attitudes and values
• Assessment activities should be constructive; focus on what the children can do, look for strengths and encourage further learning.
• Assessment will require systematic observation of student’s work, questioning and appraisal of the products of children’s work.
• Assessment will focus on proficiency in using the required skills of Science and Technology over a period of time
• Teacher’s observations will focus on positive achievements
• Teachers will use a range of Assessment strategies to ensure information is gathered and focuses on proficiency in using the required skills pertinent to this key learning
area. They include strategies such as:
- observation
- listening
- student - teacher discussions
- student demonstrations and explanations
- anecdotal records of student’s performance
- analysing samples of students work
- photographs and videos of activities.

- The Units of work selected across the K-6 classes are sequential and cover the content areas of the curriculum. They have been chosen so as to allow for identifying a student’s current achievement and in planning future learning experiences.
- Integration with other KLA’s is seen as an appropriate strategy.

Further information related to assessment strategies in Science and Technology is outlined on p.28 & 29 of *Science and Technology K-6 – Syllabus and Support Document*.

Additional information about Assessment at St. Mary’s is located in the Assessment Policy (St. Mary’s Policy and Procedure Manual – Programming, Assessment and Reporting Policy).

10. REPORTING

As a result of ongoing assessment, the progress of a student will be communicated to their parent/guardian in both written and verbal form over the course of the year. At St. Mary’s we inform parents/guardians of student’s progress in the following ways:

- Student led conferences – During Term 1 and Term 3
- Written Formal Report - At the end of Term 2 and Term 4.
- An interview between parents/guardians and the teacher can be made at a mutually convenient time at any time throughout the year.

Reporting at St. Mary’s reflects the spirit of the school’s mission statement. As such, it should be undertaken in the ways that:

- Acknowledge parent’s rights to be adequately informed of their child’s progress.
- are meaningful, appropriate and understandable to the audience;
- are appropriate to the stage of student development;
- seek to build on achievements;
- demonstrate links to stage outcomes;
- Foster productive school/home understanding and interaction.

Written Reports are completed at the end of Term 2 and Term 4. Written reports are designed to provide an overview of the child’s achievement and efforts across all curriculum areas. The written report form is regularly evaluated to ensure that it is relevant to curriculum development, taking particular note of outcomes and portfolios of student progress.

11. EVALUATION
Evaluation is a process used to enhance student learning, teacher effectiveness and improve courses and programs. A continual improvement cycle underpins good practice in learning and teaching, and evaluation is a key step in that cycle. We continually gather information about the quality of student learning that is taking place in our classrooms. We then make judgments based on that information to ensure the content we are providing is current, relevant and appropriate to the learners' needs.

Teachers need to gather, organise and interpret information in order to make judgments about the effectiveness and appropriateness of:
- plans for the teaching of specific units
- teaching programmes
- teaching strategies and practices
- assessment strategies
- resources
- Staff development

12. RESOURCES
Science and Technology K-6 Outcomes and Indicators (NSW Board of Studies)
Science and Technology Syllabus Document (NSW Board of Studies)
New Science and Technology Today K-6. (Tess and Tony Boyle)
Primary Connections. (Academy of Science. 2007).
Australian Curriculum, Assessment and Reporting Authority. (ACARA, 2011).

Other suggested resources:
- Guest speakers
- Field trips or excursions
- Internet
- Computer programmes – Web Quests
- Commercially produced teaching kits
- Library – School and Local

Additional teacher resource material is available in the Science and Technology teacher reference section of the staff room. Specific resources are located in the science cupboard in the resource room and computer software and programmes are located within the computer lab.