Science Policy

Identity Statement
To provide a school community that draws on the traditions of the Brigidine Order, that celebrates life, reaches out to others and actively cares for our world.

Vision Statements
- We are immersed in and challenged by the Gospel values of Jesus, which permeate every aspect of our school life.
- A strong sense of belonging and community is nurtured and extended into the faith community and the wider community.
- Quality teaching and learning experiences are operating in all areas of learning so that the potential of each person is developed and challenged.
- The rights and dignity of all members of the school community are recognised, acknowledged and developed and extended to the care of the world in which we live.

Mission Statements
Because we believe these we will:
- Provide an environment in which students are treated as individuals and are encouraged to develop a love of and interest in learning, a sense of wonder and a sense of her/his own worth.
- Develop an understanding that relationships are based on self-discipline, respect and love for others.
- Promote an atmosphere of joy and a sense of fun in students by celebrating achievements and various facets of their lives.
- Involve parents and other people in the wider community to work with teachers, to enrich, extend and support our learning experiences.
- Evaluate all areas of the curriculum systematically to ensure that the best possible programs, skills and resources are being provided.

Graduate Outcomes
We endeavour to create graduates who will:
- Have a dynamic faith
- Be committed to social justice
- Be environmentally aware
- Develop and sustain loving relationships
- Be life-long learners
- Realise their potential
- Be creative problem-solvers
- Be resilient, confident and independent
- Be respectful
- Have courage and integrity
- Be self-aware
- Enjoy their experiences
Science Policy

Basic Beliefs

Science provides a way of answering interesting and important questions about the biological, physical and technological world. It provides opportunities for students to develop an understanding of important science concepts and processes and the practices used to develop scientific knowledge. The science curriculum develops the student’s awareness of science’s contribution to our culture and society, and its applications in our lives. Science develops critical and creative thinking skills and challenges students to identify questions and draw evidence-based conclusions using scientific methods.

Aims

The Science curriculum will develop:

• an interest in science as a means of expanding their curiosity and willingness to explore, ask questions about and speculate on the changing world in which they live
• an understanding of the vision that science provides of the nature of living things, of the Earth and its place in the cosmos, and of the physical and chemical processes that explain the behaviour of all material things
• an understanding of the nature of scientific inquiry and the ability to use a range of scientific inquiry methods, including questioning; planning and conducting experiments and investigations based on ethical principles; collecting and analysing data; evaluating results; and drawing critical, evidence-based conclusions
• an ability to communicate scientific understanding and findings to a range of audiences, to justify ideas on the basis of evidence, and to evaluate and debate scientific arguments and claims
• an ability to solve problems and make informed, evidence-based decisions about current and future applications of science while taking into account ethical and social implications of decisions
• an understanding of historical and cultural contributions to science as well as contemporary science issues and activities and an understanding of the diversity of careers related to science
• a solid foundation of knowledge of the biological, chemical, physical, Earth and space sciences, including being able to select and integrate the scientific knowledge and methods needed to explain and predict phenomena, to apply that understanding to new situations and events, and to appreciate the dynamic nature of science knowledge.

Agreed Major Teaching and Learning Strategies:

Science is to be integrated into the curriculum where possible via an inquiry-based unit.

Science is organized into three strands:

Science Understanding

Science as a Human Endeavour

Science Inquiry Skills.

Each strand comprises of the following four sub-strands: biological, chemical, physical and earth and space sciences. Together, the three strands of the science curriculum provide students with understanding, knowledge and skills through which they can develop a scientific view of the world. Students are challenged to explore science, its concepts, nature and uses through clearly described inquiry processes.

Science Education follows the experiential approach as follows:

• Experiences (Teacher/Child initiated)
• Curiosity/Prediction/Hypothesis
Science Policy

- Fair Testing
- Data collection
- Experimentation
- Evaluations (Refine hypothesis)
- Concept (Using and internalising concept)
- Analysis/Conclusion

Organisation:

- Whole school scope and sequence on a two-year cycle.
- Science is taught as a specialist program and through class inquiry units.

RESOURCES

Core Curriculum Resources:

AUSVELS
Primary Investigations in Science (Prep – 6)
Science Connections
STAV
Primary Investigations
SEED member

Support Curriculum Resources:

Primary Science
A variety of online resources including CSIRO, Monash University Teacher Resource, Questacon, ABC.

Major Teaching and Learning Resources:

AUSVELS and the Inquiry Approach to learning

Assessment:

- Observation
- Modelling
- Product assessment
- Oral questioning
- Journal piece
- Rubrics
- Peer evaluation
- Self-assessment.
- Multi-media presentations and projects

Record Keeping

- Student’s work
- Student’s folders
- Journals
- Checklists
Science Policy

Reporting

- Informal meeting with parents
- Parent/teacher interview and oral report
- School report

DEVELOPMENT:

- At the end of each year, Science co-ordinator to audit consumable resources and re-order for the following year.
- Policy will be reviewed on a three-year cycle.

Principal Signature: ______________________________

Board Member Signature: ____________