MATHEMATICS POLICY

Rationale
The Mathematics Curriculum “develops the numeracy capabilities that all students need in their personal, work and civic life, and provides the fundamentals on which mathematical specialities and professional applications of mathematics are built”. (VCAA, AusVELS, 2012)

In the 21st century, it isn’t enough for our students to have a thorough knowledge of mathematical skills and understandings – as the definition implies, they must be able to make connections between the “known” and the “new” and then apply this knowledge and the associated skills using a variety of technologies and materials.

‘….a person’s level of numeracy depends on his/her ability to confidently and appropriately apply mathematics within the specific contexts in which they operate in their own life.’ (Early Years Numeracy In The Classroom pg 9).

Aims
Our primary aim is for our students to become numerate.

To achieve this outcome, we aim to ensure that students:

- Are confident, creative users and communicators of Mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens.
- Develop an increasingly sophisticated understanding of mathematical concepts and fluency with processes, and are able to pose and solve problems and reason in Number and Algebra, Measurement and Geometry, and Statistics and Probability.
- Recognise connections between the areas of Mathematics and other disciplines and appreciate Mathematics as an accessible and enjoyable discipline to study.

(VCAA, AusVELS, 2012)

Implementation
As part of the learning and teaching of Mathematics at St Francis we have recognised:

- That as teachers it is vital when planning to know the range of skills and understandings demonstrated by students in order for learning to take place;
- That teachers need to draw on a wide knowledge base which includes knowing their students needs and learning styles, understanding how mathematics is learned and what affects student opportunities to learn Mathematics;

That it is the teachers’ role to establish a collaborative, learning environment which motivates and addresses the needs of students whilst encouraging them to become confident, independent learners;

That purposeful planning takes place in Professional Learning Teams and through current Professional Learning;

That for classroom programs to be effective, continuous monitoring and assessment needs to be incorporated into focussed teaching sessions and planning including the planning of incursions;

That early intervention is essential in improving a student’s potential to achieve;

That students will become confident and achieve if they are given appropriate support and scaffolded learning experiences;

That home/school partnerships are essential and families are invited to participate through Family Maths Nights, Maths Competitions, Take home Maths Tubs, Home activity grids and information sessions.

**Approaches To Learning**

We believe students develop deeper and broader understandings when they explore and make sense of new mathematical ideas by connecting them to what they already know.

In this way, the learning activities presented for students will focus on students:

- Applying known mathematical skills and understandings;
- Making sense of new mathematical ideas;
- Making connections between ideas;
- Constructing generalisations;
- Transferring understandings to problems;
- Using problem-solving skills on tasks from Maths 300 (year 5 and 6);
- Reflecting on the strategies they have used.

**Approaches to Teaching**

The principles driving the Mathematics Program are:

- it is learner centred: based on the identified needs, interests and concerns of students;
- it is collaboratively organised: with teachers planning in Professional Learning Teams and students working in the classroom in small focussed groups;
- it is outcome based: as documented in the Mathematics Curriculum- AusVELS.
- it is flexibly constructed showing awareness of the different needs of students, teachers and community.

The classroom structure will include:

- a daily numeracy block (5 hours minimum per week);
- teaching incorporates a tools session, teaching session, focussed teaching group, small group/independent work and reflection;
- continuous monitoring and assessment;
- students identified for focussed teaching groups;
- intervention plans and program;
- whole school planning and organization.