

## Mathematics

### Policy Statement

Croydon Hills will deliver a sequential course based on the outcomes from the AusVELS curriculum (<http://ausvels.vcaa.vic.edu.au/Mathematics/Overview/Rationale-and-Aims>).

Mathematics is a process subject and is therefore integrated as far as possible into other content areas of the AusVELS curriculum.

Mathematical knowledge includes knowledge of concepts, objects, definitions and structures.

Mathematical reasoning and thinking underpins all aspects of school mathematics, including problem posing, problem solving, investigation, discovery and modelling.

The Mathematics domain is organised into seven sections, one for each level of achievement from Foundation to Year 6. Each level includes a learning focus statement and a set of standards organised by dimension.

### Rationale

Mathematics pervades all aspects of our lives and competence in Mathematics is integral to successful participation in modern society. Mathematics has a fundamental role in enabling cultural, social and technological advances, and empowering individuals as critical citizens in contemporary society and for the future. The Mathematics program will allow all students to have genuine access to mathematical learning. It should build on students' interests and experiences so they see a purpose for the concepts and skills being taught. Encouraging students to analyse, compare, explain, estimate and synthesise the mathematics problem will enable them to develop the ability to choose the best approach to solve problems.

Through learning mathematics at Croydon Hills, students will:

- demonstrate useful mathematical and numeracy skills
- solve practical problems with mathematics
- make mathematical connections and be able to apply mathematical concepts, skills and processes in posing and solving mathematical problems
- be confident in one's personal knowledge of mathematics, to feel able both to apply it, and to acquire new knowledge and skills when needed
- use ICT as a tool to develop and represent mathematical skills and understanding and
- communicate and reason mathematically.

### Implementation

- The Numeracy Coordinator is responsible for overall coordination, organisation and implementation of effective numeracy strategies across the school. The Numeracy Coordinator is also responsible for the Mathematics budget and approval of spending.
- Classroom teachers have the principal responsibility for developing numeracy skills in classroom programs, through comprehensive level planning and consultation with the Numeracy and PLT Coordinator. Teachers will draw on student's knowledge of the real world to ensure that abstract ideas are linked to something familiar.

## Classroom Teachers will:

- plan for mathematics lessons for each student for a minimum of 5 hours per week
- establish clear learning intentions and purpose for each lesson
- present mathematics in a variety of learning contexts including real-life experiences, games, open ended tasks and literature based tasks
- structure lessons consisting of an engaging maths warm up game/activity, followed by focused learning tasks, and concluded with meaningful student reflections
- develop a 'key terminology' list with student contribution for all concepts, in order to promote correct mathematical language use across the school
- utilise a range of available resources to cater for different learning styles within the classroom and cohort
- encourage students to confidently apply their knowledge, flexibility and creativity in problem solving and risk taking situations
- provide opportunities for students to develop their understanding of, and ability to use, problem solving strategies through open-ended learning tasks
- allow scope for students to explore and discover new strategies and mathematical thinking
- use ICT to support the development of students' mathematical understandings, skills and practices
- successfully follow the school's identified mathematics assessment schedule
- ensure relevant assessment is used with common assessment tasks developed, implemented and moderated across levels
- plan units of work in accordance with selected school-wide planning documents, supporting a consistent, whole school approach to teaching programs
- involve students in self and peer assessment that enables them to recognise, articulate and share their understandings, as well as set future learning goals
- ensure student's individual abilities are measured and learning opportunities are provided that cater for the identified needs of each student
- ensure students requiring additional assistance or extension, are identified, supported and monitored through Individual Learning Plans (ILPs) and/or targeted small group assistance and
- provide opportunities for students to participate in externally offered maths extension tasks/competitions; such as chess tournaments, International Competitions Assessment for Schools (ICAS) and other similar assessments.

## References

AusVels Mathematics (<http://ausvels.vcaa.vic.edu.au/Mathematics/Overview/Rationale-and-Aims>)

## Review

This policy will be reviewed as part of the school's cyclic review.