

# Numeracy Policy



**Williamstown High  
School**

Updated in 2018

# Numeracy Policy - Williamstown High School

## AT WILLIAMSTOWN HIGH SCHOOL WE VALUE:

- Excellence and creativity in our achievements and ambitions.
- Integrity and honesty in our actions and relationships.
- Diversity in our curriculum, in each other and in our community.
- Strong and open communication between our school and our homes, and between our teachers, our students and our families.
- A commitment to social justice and a passion to protect and improve our environment and our community.

## Rationale

At WHS we are committed to ensuring that all students develop the skills necessary to achieve academic success and to prepare them for lifelong learning after school so they can fully participate in society. Effective numeracy skills are vital to meet the inherent mathematical demands that exist in all subject areas at school and to meet the greater demands on numeracy in the increasingly technological society in which we live.

### Definition

There are various definitions of numeracy (referred to as mathematical literacy in some countries) within Australia and around the world, so in 1997 the Commonwealth and the states agreed upon a shared definition for Australian use. This definition stems from the Numeracy Education Strategy Development Conference that took place in 1997 and is the definition adopted by the AAMT (Australian Association of Maths Teachers). WHS also adopts this definition of numeracy. The definition states:

*“Numeracy involves using mathematics effectively to meet the general demands of life in various contexts, such as at home, work and community.” (AAMT, 1997, cited in Doig 2001)*

The whole School community is involved in creating an environment where numeracy is explicitly addressed and valued. The School's beliefs about the importance of teaching numeracy skills explicitly are under-pinned by The Department of Education and Training policy and the Western Metropolitan Region Blueprint as well as the initiatives outlined in the School's Strategic Plan and Annual Implementation Plan (AIP). Each subject area incorporates aspects of numeracy so all teachers have a responsibility to teach how these skills are applied in their subject area. In addition, Mathematics has a particular but not exclusive role in developing numeracy.

At Williamstown HS we believe that:

- every teacher is a teacher of numeracy
- students need to have their numeracy learning differentiated
- a balanced and integrated approach to teaching numeracy is essential
- teacher knowledge of relevant numeracy strategies and the numeracy and mathematical demands in their subject area is essential
- student learning needs will be identified and acted upon
- effective instruction requires systematic monitoring and use of assessment data

## Purpose

The purpose of this policy is to guide the school community in our approach to improved numeracy outcomes.

## Implementation

Numeracy is a whole school priority and will be supported and resourced by allocation of funding, professional development for all staff and given status within the leadership structure.

**a) Curriculum provision and documentation reflects effective instruction as outlined in this policy**

Students will make the greatest progress where teaching is consistently delivered across classrooms and all subject areas plan to address the specific numeracy (and mathematical demands) of their content area. The School's Course Accreditation process will ensure that Curriculum Area Teams (CATs) specifically address the numeracy (and mathematical demands) of their content areas.

**b) Development of a Numeracy Plan**

A Numeracy Plan will be developed from the goals in the School's Strategic Plan. This document will focus on a range of effective numeracy strategies to work on each year to meet the specified targets.

**c) Professional learning at whole school and campus level as well as through support of small groups and individuals**

Systematic professional learning will be delivered, both at a whole school level and to teams and individuals, through support sessions. Priorities for professional learning will be identified through the School's Strategic Plan and further refined in the School's Numeracy Plan in order to have a focused approach which allows teachers the chance to consolidate and fully implement new learnings. The goal of all professional learning is to see changed practices evident in classrooms consistently across the School.

**d) Identifying and responding to student progress.**

A Diagnostic Assessment Schedule will ensure that student needs are identified and responded to.

## Roles and responsibilities

### The Mathematics Leader

The Mathematics Leader is responsible for the following:

- Managing the implementation of the Numeracy Plan across the School
- Managing the development of a support program for students with additional numeracy needs
- Managing the collection, use and distribution of data and developing protocols for the use of this data
- Coordinating the analysis of numeracy diagnostic assessment data for whole school, year, class and individual students
- Establishing and resourcing classrooms that support Numeracy
- Conducting Professional Learning sessions for all staff to develop consistent numeracy practices

### **CAT Leaders (Curriculum Area Team)**

CAT leaders are responsible for identifying the numeracy demands of their subject areas and planning to address this through the curriculum. This involves working with the numeracy support team to identify and implement effective classroom strategies.

CAT leaders, with the support of the Mathematics Leader will coordinate the development of curriculum units for a whole year level and additions/modifications to curriculum units for groups of students that target the numeracy gaps and misunderstandings of students in their CAT area.

### **Classroom Teachers**

All teachers have a responsibility to teach numeracy and support the numeracy development of students. Continued numeracy development occurs when:

- Teachers model and explicitly explain the tasks and the numeracy components, alongside the content they are teaching
- Student learning is differentiated to achieve success and students are provided with feedback to improve all their skills, including numeracy
- Students are given frequent opportunities to practice and develop their numeracy knowledge and skills
- Formative assessment (of a formal and informal nature) is used to give students feedback on growth in numeracy skills as well as content knowledge

### **Parents**

Partnerships that link the home, the school and the community are significantly important. Parents can support the numeracy development of their children by taking an interest in the numeracy components of their child's school work and by exploring and discussing the numeracy skills that are needed around the home and in everyday life.

### **Students**

Regular practise of numeracy skills significantly improves student performance. Students will be provided opportunities to practise their numeracy skills at school and will be encouraged to do regular practise outside of class in line with the School's Independent Study Policy.

## **Specific Procedures**

### **Identifying student needs and tracking progress**

All students will be tested during the year using a variety of formal diagnostic numeracy tools, which will include as a minimum the following assessments: Progressive Achievement Test (PAT) Numeracy (each year) and the diagnostic assessment for Scaffolding Numeracy in the Middle Years (Years 7). These results will be triangulated with the NAPLAN data and observed data from additional assessments performed by the Maths teachers.

Data will be available electronically through Compass Student Management Tool.

This data will be analysed by the Mathematics Leader to identify students with significant learning needs. According to the results, student needs will be addressed through either a Year Level Plan or Individual Learning Plan.

**Year Level** – All CATs will be provided with an analysis of the learning needs of the cohort based on earlier NAPLAN testing and current diagnostic assessments. This will be used to identify general skills that should be addressed through the curriculum.

**Individual** – Students who are greater than two years behind or above the expected level will have an individual learning plan developed in line with the Additional Educational Needs (AEN) policy framework.

**Differentiation** – Students who are within two years behind or above the expected level will have their learning program differentiated.

**This specific process is set out in the flowchart on the following page.**

## Tracking and monitoring student numeracy progress

### Data collection

Student diagnostic assessment according to assessment schedule and relevant transitional data as new students enrol

Results uploaded to Central database.

### Analysis of results

Analysis of results to identify individual needs and general trends.

Supporting students with individual needs

Addressing general trends

### Planning

**Individual learning plans**  
for students beyond 2 years below or above

**Differentiation**  
for students within 2 years below or above

**Year level plans**  
Address learning needs through course accreditation process

**Class Teachers** to develop individual learning plans

**Class Teachers** differentiate to cater learning needs

**Maths CAT Leaders**  
Explicit teaching of skills and strategies

**Other CAT leaders**  
Reinforcing skills and addressing subject specific demands

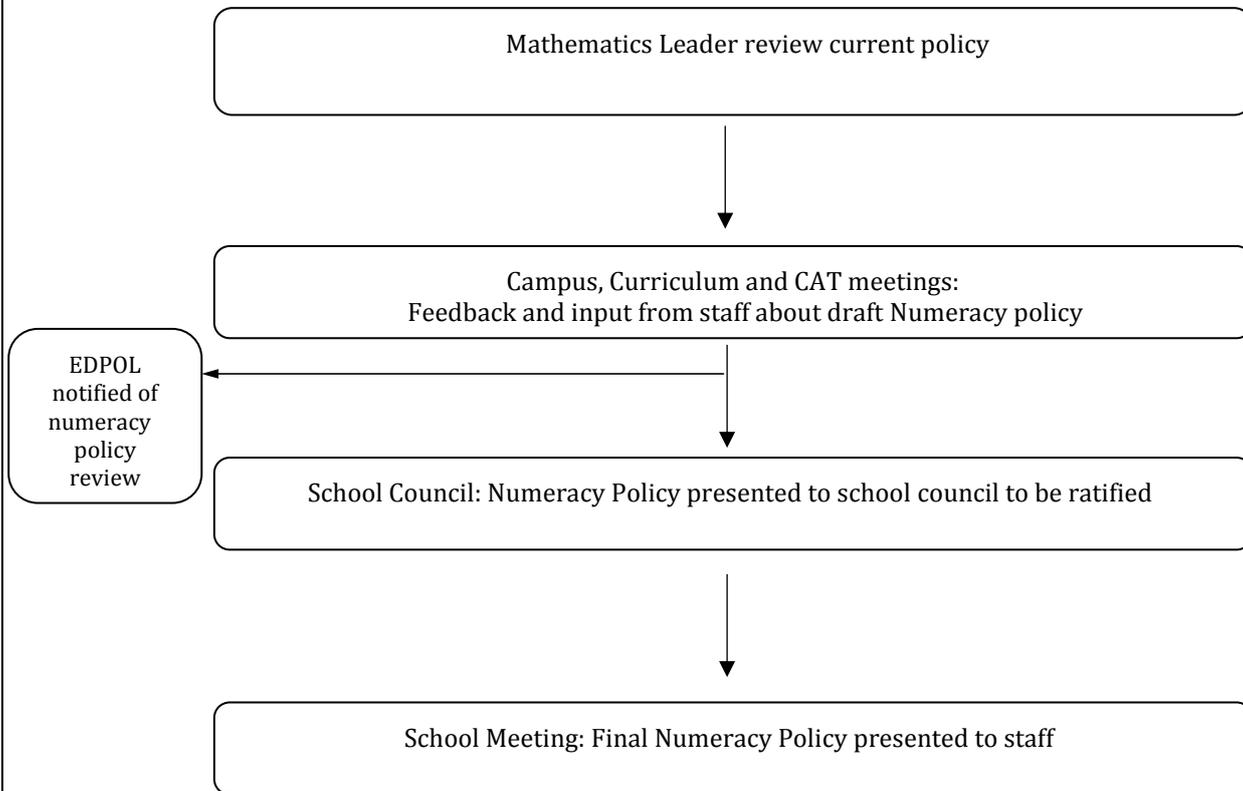
### Ongoing tracking

Re-assessment to measure progress

## EVALUATION AND REVIEW:

As part of an ongoing evaluation process the Mathematics Leader will review the effectiveness of the Numeracy Policy at the conclusion of each year. Improvements to the processes and procedures will be adapted when required. Once ratified by School Council, this policy will be reviewed in line with the School's Strategic Plan.

## CONSULTATIVE PROCESS



**Ratification:** This policy was ratified by school council on 18 September 2018