

WOOMBYE STATE SCHOOL **NUMERACY PLAN**

To be numerate is to use mathematics effectively to meet the general demands of life at home, in paid work, and for participation in community and civic life.

In school education, numeracy is a fundamental component of learning needed across all areas of the curriculum. It involves the disposition to use,

in context, a combination of:

- underpinning mathematical concepts and skills from across the discipline (numerical, spatial, graphical, statistical and algebraic)
- mathematical thinking and strategies
- general thinking skills
- grounded appreciation of context

Unlike mathematics, which focuses on generalisation and abstraction, numeracy is embedded in specific contexts and has real-world purposes. People who are numerate draw on three kinds of know-how:

- using mathematical concepts and skills
- making sense of unfamiliar situations
- being critical of how mathematics is used.

Many out-of-school numerate practices do not require mathematics as it is traditionally taught in schools. Instead, students need to use and adapt intuition, tools and rules of thumb to meet specific circumstances and solve problems. Within the Woombye State School setting, the teaching we do to improve students' numeracy involves developing their ability to be adaptive thinkers, confident in applying mathematics knowledge in a range of contexts, flexible in their thinking, and willing to take reasonable risks when solving problems.

Early years of schooling

Students' early numeracy experiences occur in the contexts of home and school. At Woombye State School a student's numerate capabilities are enhanced by activities that require them to:

- choose and use mathematics in a range of contexts (e.g. using numbers in games, using informal strategies to measure, and deciding what is 'fair' in games of chance)
- develop and extend their language capabilities (e.g. use positional language to describe location, and choose from the various words used to indicate addition — altogether, total, sum, combine)
- be persistent when using mathematics
- interpret what classmates and adults mean when using simple mathematical concepts and processes
- think and communicate their ideas
- develop understanding of concepts relating to number, space, measurement, patterns, chance and data
- learn different ways to identify, describe and record their observations and findings, as well as know how to use symbols, maps, models and flow charts to describe information.

Middle years of schooling

Students continue to develop their numerate capabilities by consolidating their basic mathematics knowledge and skills learned in the early years. Also, they begin to connect their mathematics understandings to the world beyond home and school. Ongoing development of students' numerate capabilities is enhanced by activities that require them to:

- interpret data, use time, and plan and use money in context
- become more independent in the use of mathematics in context
- deal with increasingly abstract ideas
- select appropriate mental, written or calculator methods when calculating in context
- check the reasonableness of calculations and conclusions
- collect, organise, represent and analyse data to inform decisions
- use spatial visualisation and an understanding of conventions to make sense of maps and plans
- take reasonable risks in the application of their mathematics knowledge
- apply relevant mathematics knowledge in a range of contexts.