Introduction to literacy in Mathematics

Mathematical literacy and literacy in Mathematics
Literate demands in mathematics education
Literacy in the Victorian Curriculum: Mathematics

Developing understanding in Mathematics

Learning mathematical language
- Translating from words to symbols
- Understanding mathematical terms and notation
- Everyday versus mathematical language
- Technical terminology
- Using morphological matrices with measurement units
- Introducing new mathematical terminology
- Reading and discussing operations for meaning
- Using cognitive conflict to promote precision of definitions
- Language for graphs and statistical displays

Using literacy to support problem solving
- Close reading: identifying key information in a problem statement
- Identifying a simpler, related problem
- Drawing a diagram
- Using an organised list
- Identify a pattern
- Linking count nouns and mass nouns to variables in statistics
- Investigating a concept from multiple perspectives
- Explicitly teaching counter-examples
- Developing students’ question posing

Communicating understanding in Mathematics

Creating visual representations
- Converting written questions into graphical representations
- Discussing and critiquing graphical representations
- Creating tables
- Jointly constructing concept maps
- Creating and presenting statistical displays

Supporting solutions
- Critiquing and questioning solutions
- Recognising appropriate answers
- Justification of solutions
- Communicating solutions where technology is used

Literacy in Mathematics: putting it together

Writing solutions to worded mathematical problems
Understanding this strategy
Formulate the problem mathematically
Reasoning and calculations
Answer

Example using written solutions
Example: School fete muffins

Learning sequence