

Literacy Processes

- Understand
- Use
- Critically Appreciate

Numeracy in Mathematics

- Number
- Algebra and Functions
- Geometry and Trigonometry
- Probability and Statistics
- Synthesis and Problem Solving

MQI for LNMTI

- Linking Between Representations
- Explanations
- Patterns and Generalisations
- Mathematical Sense-Making
- Mathematical Language
- Multiple Procedures or Solution Methods
- Remediation of Student Errors and Difficulties
- Teacher Uses Student Mathematical Contributions

Literacy Forms

- Spoken Language
- Printed Text
- Digital Media
- Broadcast Media

P1: For literacy I remember when I was doing algebra with the second years, linear equations came up and we just wrote the word 'linear' down. I said 'what does that mean? They said 'it is a line from linear'. It kind of made more sense, linear equations, that was highlighting to them to make sense of words.

P2: We made a maths wall so when we learn new a word, we write it on the maths wall and put the symbol opposite it. We associate the symbol with the word for literacy and they read the word and they take it down in their vocab copies. So it's reading, writing and vocab. That would be literacy again.

P3: In TY last week we made clinometers. For literacy they had to read the instructions they were given. So not only did they have to read them they had to really look at them. So they did it individually but they had to work together so that was speaking and listening as well. Then for the numeracy part they were using it to actually measure angles and stuff. So that's both covered I think.

P4: Literacy wise, last year, I had a really weak class that were daunted by problem solving in trigonometry. They didn't even put pen to paper. They weren't sure where it was going to go. I needed them to draw a line just so it would eventually form a triangle. Instead I gave them visuals, real life examples, like a plane taking off and a line of the altitude over the ground. In pairs they looked at the visual and they created their own problems in which they had to include given key words. They had to mention all of the numbers and see where the variable was. Sentence by sentence they described the picture and that's all they were to do. Then when we reversed it they solved them. They had to just draw one line and they knew eventually what their goal was. That was our literacy. Then numeracy, I'm relying on that more than ever this year because I've got three Spanish students in my TY class with very little English. So I find myself drawing up symbols on the board and drawing visuals for them while I am talking.

P5: I was introducing Algebra. I was doing all the new key terms like 'constant' and 'variable' and 'coefficient' for literacy. Then for numeracy they were kind of seeing patterns like '5 years older than someone else'.

P6: We started probability. So there is a load of literacy. I did the water bottle challenge with them and they flipped it at different heights. For literacy they had to discuss, describe each event, whether it was 'likely', 'unlikely', 'impossible'. That actually worked really well because they figured out 'impossible' meant it definitely can't happen whereas they were saying 'impossible' means 'it's just really hard'. For numeracy they had to make up a table. They had to make sense of the data. They had to use tallies and they were able to come up with the relative frequency themselves so to apply the formula themselves.

LNMTI Framework	P1	P2	P3	P4	P5	P6
Literacy Processes	✓ Understand	✓ Understand	✓ Understand ✓ Use	✓ Understand ✓ Use ✓ Critically Appreciate	✓ Understand	✓ Understand ✓ Use ✓ Critically Appreciate
Numeracy in Mathematics	✓ Algebra& Functions	No data	✓ Geometry& Trigonometry	✓ Geometry& Trigonometry ✓ Synthesis and Problem Solving	✓ Algebra& Functions	✓ Probability& Statistics ✓ Synthesis and Problem Solving
<i>MQI for LNMTI</i>	✓ Mathematical language ✓ Teacher uses student mathematical contributions	✓ Mathematical Language	No data	✓ Mathematical Language ✓ Linking between representations ✓ Mathematical Sense-Making ✓ Remediation of Student Errors and Difficulties	✓ Mathematical Language ✓ Patterns and Generalisations	✓ Mathematical Language ✓ Patterns and Generalisations ✓ Teacher uses student mathematical contributions ✓ Mathematical Sense-making
Literacy Forms	✓ Spoken Language ✓ Printed Text	✓ Spoken Language ✓ Printed Text	✓ Spoken Language ✓ Printed Text	✓ Spoken Language ✓ Printed Text ✓ Digital Media	✓ Spoken Language ✓ Printed Text	✓ Spoken Language ✓ Printed Text