

Foundation - Year 9 Maths Overview Term 1, 2021

Our school community is one with high expectations.
 We are collaborative and inclusive of all.
 We deliver a 21st century guaranteed and viable curriculum that results in outstanding student achievement.

The Maths Curriculum links directly to:

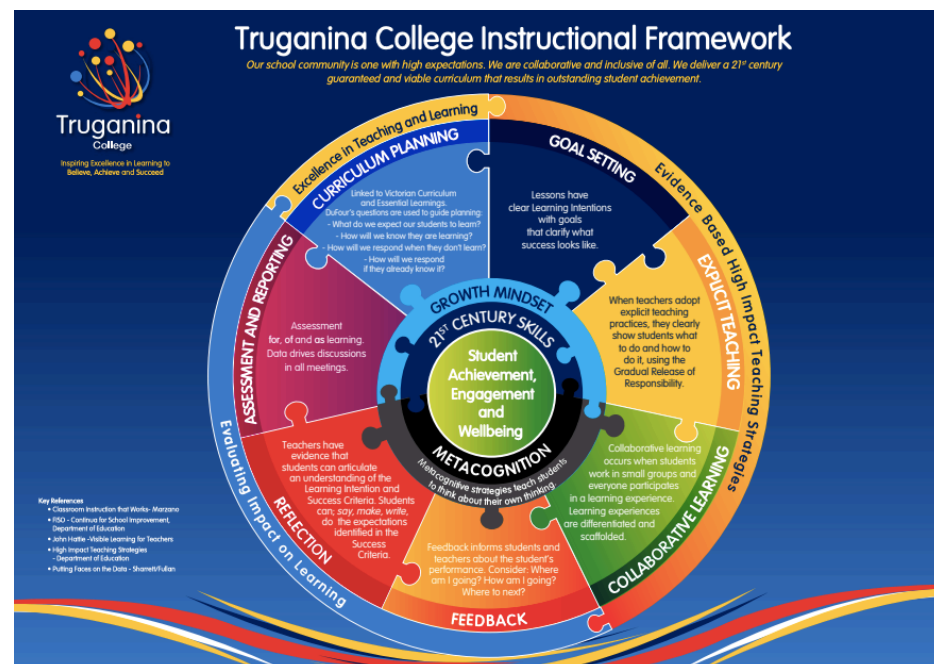
HIGH IMPACT TEACHING STRATEGIES (HITS)



The planning, teaching and learning of the Maths Curriculum links directly to the College's Strategic Plan goals:

- Goal 1: To grow each student's learning outcomes across all curriculum areas, with a focus on Literacy and Numeracy.
- Goal 2: To strengthen a positive culture for learning that empowers both students and staff.
- Goal 3: To increase community connectedness in supporting outstanding student achievement.

Instructional Framework




Curriculum Planning - Refer to DuFour's questions

Assessment & Reporting - Data drives discussion in all meetings

Maths Mantra

Maths Mantra Year F-4



Maths Mantra

- Read question two times (*uncover the information*)
- Underline key words (*focus on the question*)
- Doodle, draw, figure. (*Engage*)
- Drawing a diagram $3+4=?$
- Goldilocks bubble. (*Not too dark, not too light, just right!*)


dit dot, not dit

This means we do not look for the first thing. It is the next thing.

Sarah had seven apples and gave three apples to Lucy. How many apples does Sarah have left?



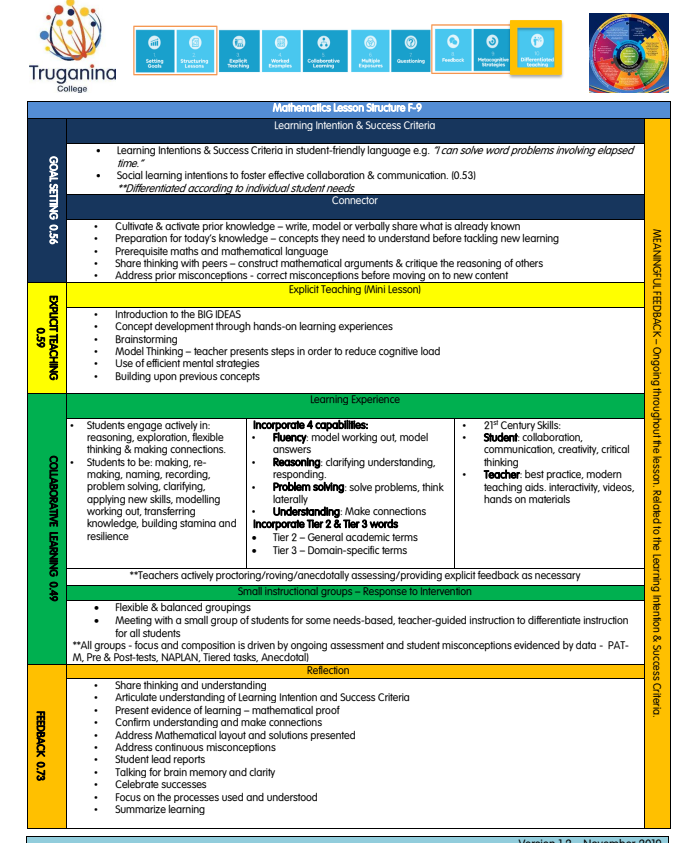
Maths Mantra Year 5-9



R	Read the question twice.	D
U	Underline the important information.	I
I	Illustrate your thinking. - Doodle, draw, figure.	T
N	Name the operations you will need. - What will you have to do?	D
E	Evaluate the problem - Find your solution.	O
D	Decide if your solution makes sense - Goldilocks bubble.	T

What are Goldilocks bubbles?
Not too dark, not too light, just right!

Maths Model



Week	The proficiency strands Understanding, Fluency, Problem Solving and Reasoning are an integral part of the Maths curriculum across the three content strands: Number & Algebra, Measurement & Geometry and Statistics & Probability The four processes will continue to be embedded across each term.	1	2	3	4	5	6	7	8	9	10	
		Refer to the Maths Essential Learnings when planning the Maths Curriculum										
Foundation		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Number & Algebra Early Number Concepts (VCMNA070) (VCMNA071)			Measurement & Geometry Morning/Afternoon (VCMMG079) (VCMMG080)		Number & Algebra Early Number Concepts Compare, Order, Count, Sequence (VCMNA069) (VCMNA072) Mental Strategies A				
Year 1		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Measurement & Geometry Days, Months, Time (VCMMG096) (VCMMG097)		Number & Algebra Number Sentences Sequence (2s, 5s, 10s) (VCMMG086) Number lines (VCMNA087) Counting on 100s chart (VCMNA093) Partitioning leading to Counting (VCMNA087) (VCMNA088) Simple addition (VCMNA089) Sharing (VCMNA090) Mental Strategies B, C						Measurement & Geometry Follow Directions (VCMMG099) Year 1 Maths Benchmark	
Year 2		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Measurement & Geometry Months & Seasons (VCMMG118) (VCMMG119)	Number & Algebra Number Sentences Counting, Sequencing Skip 2s, 4s, 5s, 10s, 3s (VCMNA103) Mental Strategies B, C	Number & Algebra Numbers to 1000 (VCMNA104) (VCMNA105)		Number & Algebra Patterns on a number line Missing Elements (VCMNA112)		Number & Algebra Worded Problems Addition/Subtraction (VCMNA113) Mental Strategies D, E, F		Measurement & Geometry Location (Direction) (VCMMG122)	
Year 3		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Measurement & Geometry Time to the Minute Calendars (VCMMG141)		Number & Algebra Connect subtraction as inverse addition (VCMNA132)		Number & Algebra Naming & Ordering to 10 000 and then apply to partition for addition (VCMNA130) (VCMNA131)		Measurement & Geometry Length & Area Measure, Order, Compare (VCMMG140)		Measurement & Geometry Mass & Capacity Measure, Order, Compare (VCMMG140)	
Year 4		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Number & Algebra Investigate and use the properties of odd & even numbers Naming & Ordering up to tens of thousands Apply place value to partition, rearrange and regroup numbers to tens of thousands (VCMNA151) (VCMNA152) (VCMNA153)		Number & Algebra Vertical Addition (renaming strategy) Vertical Subtraction (regrouping strategy) (VCMNA153) (VCMNA163) Mental Strategies N		Measurement & Geometry Converting between units of time (VCMMG167)		Measurement & Geometry Length, Mass, Capacity, Temperature (VCMMG165)	Measurement & Geometry 12-hour time and duration (VCMMG168)	Mental Strategies C, D, E, F (VCMNA133)	
Year 5		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE))	Number & Algebra Recognise, represent and order numbers to hundreds of thousands (VCMNA186)	Number & Algebra Addition and Subtraction: mental and written strategies (VCMNA185)	Number & Algebra Multiplication and Division Mental and written strategies (VCMNA183) (VCMNA184) Mental Strategies E, G		Number & Algebra Number Sentences Using equivalent number sentences to find unknown quantities (VCMNA193)	Measurement & Geometry Elapsed Time and 24hr Time (VCMMG197)		Measurement & Geometry Lines and Angles (VCMMG202)	Statistics & Probability Data Describing and interpreting different data sets in context (VCMSP207)	
Year 6		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Number & Algebra Number & Place Value Integers & Number Lines (VCMNA210) Number & Place Value Numbers to 100 000 (VCMNA186)			Number & Algebra Number & Place Value Properties of Numbers Mental & Written Strategies (VCMNA208) (VCMNA209) Mental Strategies I, J, N, L, P		Measurement & Geometry Elapsed Time Timetables (VCMMG226) (VCMMG227)		Number & Algebra Number & Place Value Division Inverse (VCMNA209) (VCMNA221)		
Year 7		Inquiry of Goals, New Ideas & Truganina’s Expectations (IGNITE)	Number & Algebra Compare Order Add and Subtract Integers (VCMNA241) Introduction to Algebra			Number & Algebra Index Laws - Index Notation (VCMNA238) Square roots of perfect square numbers (VCMNA239) Associative, commutative and distributive laws (VCMNA240)		Measurement & Geometry Triangles Side and angle properties of triangles and quadrilaterals (VCMMG262) Angle sum property of triangles (VCMMG263)		Measurement & Geometry Triangles Corresponding, alternate and co-interior angles on a transversal (VCMMG264)		

Year 8		Inquiry of Goals, New Ideas & Truganina's Expectations (IGNITE)	Number & Algebra Index Notation Rational Numbers & Integers Four Operations (VCMNA273) (VCMNA272)	Number & Algebra Real Numbers Decimals & Percentages to include Financial Maths (VCMNA274) (VCMNA276) (VCMNA278)	
Year 9		Inquiry of Goals, New Ideas & Truganina's Expectations (IGNITE)	Measurement & Geometry Pythagoras (VCMMG318)	Number and Algebra Algebraic Manipulation (VCMNA306) (VCMNA307)	Number & Algebra Index Laws and Scientific Notation (VCMNA302) (VCMNA303) (VCMNA305) Also include (VCMMG315)

Please note the following:

- The Compass Learning Tasks will be the Tiered tasks for the first unit from Years 2 to 9.
- Foundation to Year 1 Compass Learning Tasks will be a snapshot of students' learning from the first unit.
- Mental Strategies A – S will be based on the Truganina College Efficient Mental Strategies (2021>Lead Maths>Efficient Mental Strategies Benchmarks)
- Week 2 is pre assessment week.
- Week 8 is post assessment week. All assessments to be completed by Friday of Week 8.
- Misconceptions are based on pre and post - tests as questions from these tests have been taken from previous NAPLAN and PAT Assessments.

Last Updated: 12 December 2020

The Maths Curriculum links directly to:

- **High Impact Teaching Strategies**
The Department of Education and Training’s 2017 guide contains descriptions, examples, references and effect sizes for each of the 10 High Impact Teaching Strategies (HITS) being Setting Goals, Structuring Lessons, Explicit Teaching, Worked Examples, Collaborative Learning, Multiple Exposures, Questioning, Feedback, Metacognitive Strategies, and Differentiated Teaching <https://www.education.vic.gov.au/school/teachers/teachingresources/practice/improve/Pages/hits.aspx>
- **NAPLAN minimum standards**
For outlines of the competencies expected of Year 3, 5, 7 and 9 students in Numeracy: <https://www.nap.edu.au/naplan/numeracy/minimum-standards>
- **Maths Proficiency Strands**
For details of the four strands in the Mathematics Curriculum: <http://victoriancurriculum.vcaa.vic.edu.au/mathematics/introduction/learning-in-mathematics>