Truganina College
Inspiring Excellence in Learning to Believe, Achieve and Succeed.

Foundation-Year 9 Maths Overviews
Term 3, 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.

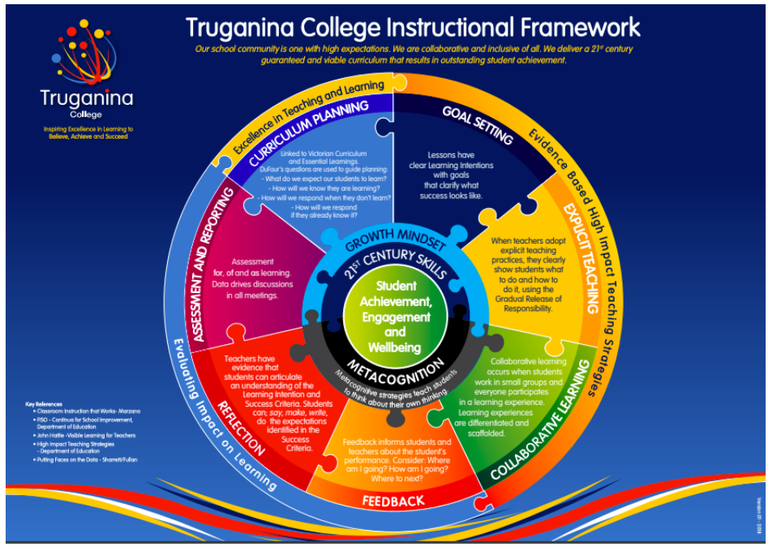
The Maths Curriculum links directly to:

HIGH IMPACT TEACHING STRATEGIES (HITS)

Effect size Teacher Clarity: 0.60
Effect size Teacher Clarity: 0.60
Effect size Teacher Clarity: 0.60
Effect size Worked Example: 0.60
Effect size Questioning: 0.46
Effect size Feedback: 0.73
Effect size Metacognitive Strategies: 0.60

The planning, teaching and learning of the Maths Curriculum link directly to the College's Strategic Plan goals:
Goal 1: To improve student learning outcomes in literacy and numeracy.
Goal 2: To empower students to become independent and self-regulating learners.
Goal 3: To enhance the health and wellbeing of all students.

Instructional Framework



Maths Mantras

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 to dark, not too light, just right)

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

dit dot, not dit

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

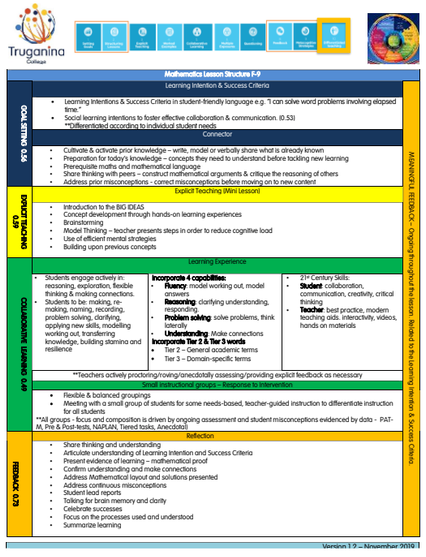
Maths Mantra
Year 5-9

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

DIT DOT DAT

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

Maths Lesson Structure



21st century skills

- Ways of Thinking: Creativity & Innovation, Critical Thinking, Problem Solving & Decision Making, Learning to Learn
- Ways of Working: Communication & Collaboration
- Ways of Living in the World: Local & Global Citizenship, Personal & Social Responsibility, Life & Career
- Tools for Working: Information Literacy, Information & Communication Technology (ICT) Literacy

Curriculum Planning - Refer to DuFour's questions
What do we need our students to learn?
How will we know they are learning?
What will we do if they have already learned it?
What will we do if they have not learned?

Assessment & Reporting - Data drives discussion in all meetings

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
Week 2 is pre-assessment week.
Week 8 is post assessment week. All assessments to be completed by Friday of Week 8.

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

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.

Week	1	2	3	4	5	6	7	8	9	10
	Refer to the Maths Essential Learnings when planning the Maths Curriculum									
Foundation	**Number & Algebra** CONSOLIDATE Count on – 1 more, 2 more Number Lines 10s Frame Trust the Count 10s (VCMNA071) (VCMNA072) Mental Strategies A, B		**Measurement & Geometry** Length Informal Units Use different objects to determine longer or shorter (VCMMG078)		**Measurement & Geometry** Time Sequencing of events Days, Weeks, Weekend Introduce "o'clock" (VCMMG079) (VCMMG080)		**Number & Algebra** Represent Money (VCMNA075)		**Number & Algebra** CONSOLIDATE Simple Addition on 10s frame 7 and 3 make 10 Beginning of number facts to 10 (VCMNA073) Mental Strategies A, B, E	
Year 1	**Number & Place Value** CONSOLIDATE Counting collections Identifying numbers 0 - 100 on chart Simple addition facts especially to 18 Number Lines (VCMNA087) (VCMNA088) (VCMNA089) Mental Strategies C		**Measurement & Geometry** Shape Consolidate 2D shapes (corners & sides) Move to 3D objects (edge, vertex & face) Include different orientations (VCMMG098)		**Measurement & Geometry** Capacity Comparison using measuring cylinders, cups or flasks (VCMMG095)	**Measurement & Geometry** Mass Comparison of pairs using uniform non-formal units (VCMMG095)	**Number & Place Value** Money Recognition Value Combinations to make larger values (VCMNA092)		**Statistics & Probability** Identify Outcomes (VCMSP100)	
Year 2	**Number & Algebra** CONSOLIDATE ALGORITHM Vertical Subtraction Vertical Addition Use of the tens column Renaming Strategy (VCMNA107)		**Number & Algebra** Multiplication and Division Use of the area concept (VCMNA108) (VCMNA114) Mental Strategies H		**Number & Algebra** Division (VCMNA109) Mental Strategies H	**Number & Algebra** Halves, Quarters and Eighths (VCMNA110)	**Measurement & Geometry** Time Half, Quarter to and past (VCMMG117) (VCMMG124)		**Statistics & Probability** Data Interpretation Collect Data Display and Interpret (VCMSP126) (VCMSP127) (VCMSP128)	
Year 3	**Number & Algebra** Multiplication and Division Problem Solving (VCMNA134) (VCMNA135) Mental Strategies H, G			**Measurement & Geometry** Shapes Drawing skills using templates Making 3D objects (Nets) (VCMMG142)		**Measurement & Geometry** Angles Using tools to identify $\frac{1}{2}$, $\frac{1}{4}$, full turn etc Not angle measures (VCMMG146)		**Statistics & Probability** Chance Experiments (VCMSP147)		Mental Strategies D, E
Year 4	**Number & Algebra** Multiples & Factors Factor Trees and Common Factors (VCMNA154) (VCMNA155) (VCMNA156) (VCMNA161) (VCMNA162) Mental Strategies H, L		**Number & Algebra** Decimals (VCMNA159)		**Measurement & Geometry** Scales, Legends and Directions (VCMMG172)		**Number & Algebra** Division: formal algorithm including problems in context (worded problems) (VCMNA155) (VCMNA156) (VCMNA162) (VCMNA164) Mental Strategies G, H, L, and N		**Statistics & Probability** Data Representation and Interpretation (surveys, displays, pictographs, column and bar charts) (VCMSP178) (VCMSP179) (VCMSP180)	
Year 5	**Measurement & Geometry** Perimeter (VCMMG196)	**Measurement & Geometry** Area (VCMMG196) Mental Strategy I	**Measurement & Geometry** Volume and Capacity (VCMMG196)	**Measurement & Geometry** Location (Describing routes and locations using grid reference systems and directional language) (VCMMG199)	**Measurement & Geometry** Symmetry and Transformations (VCMMG200) (VCMMG201)	**Number & Algebra** Factors, multiples and divisibility rules (VCMNA181) Mental Strategy J	**Number & Algebra** Rounding and Estimating (VCMNA182) Mental Strategy N		**Statistics & Probability** Pose questions, collect data, construct displays and describe and interpret data (VCMSP205) (VCMSP206) (VCMSP207)	
Year 6	**Measurement & Geometry** Area Include conversion of units (VCMMG224) Lead to Volume (VCMMG225)		**Measurement & Geometry** Transformation Cartesian Coordinate System (VCMMG229) (VCMMG230)		Mental Strategies H, L, N	**Number & Place Value** Order of Operations (VCMNA220)			**Statistics & Probability** Pose Questions, Construct Displays, Describe & Interpret Data (VCMSP235) (VCMSP236) (VCMSP237)	

Year 7		**Number & Algebra** Fractions, Percentages and Decimals (VCMNA244) (VCMNA245) (VCMNA246) (VCMNA247) (VCMNA248)	**Measurement & Geometry** Triangles, Quadrilaterals, Prisms, Area, Volume and Unit Conversion (VCMMG258) (VCMMG259) (VCMMG260)		**Number & Algebra** Pattern Generators Extending Patterns Competency based Assessment
Year 8		**Number & Algebra** Pattern Generators Extending Patterns Competency based Assessment	**Statistics & Probability** Data Collection (VCMSP297) (VCMSP298) (VCMSP299) (VCMSP300)		**Number & Algebra** Real Numbers Rates and Ratios (VCMNA277)
Year 9		**Measurement & Geometry** Measurement – Including Units of Measurement, Area, Total Surface Area and Volume of Prisms (VCMMG312) (VCMMG313) (VCMMG314)	**Number & Algebra** Linear and Non-Linear Relationships (VCMNA308) (VCMNA309) (VCMNA310) (VCMNA311)		**Measurement & Geometry** Geometric Reasoning (VCMMG316) (VCMMG317)

Last Updated 11 June 2021