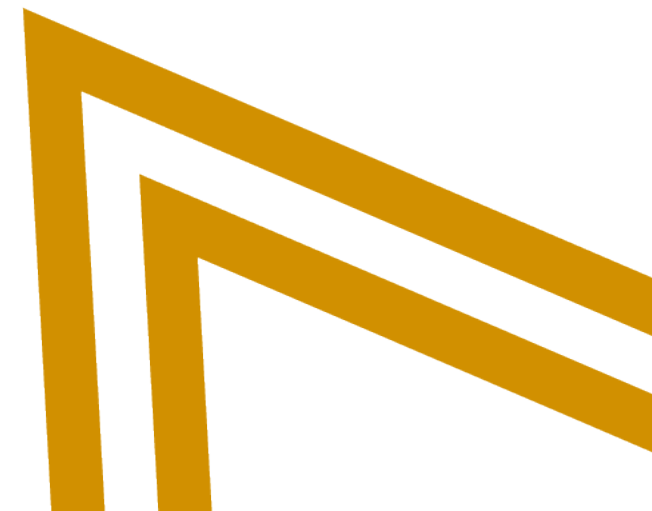


WORKING TOGETHER ON 6 – 7 TRANSITION WITH A FOCUS ON IMPROVING MATHEMATICS

The Rolling Hills Primary School &
Mooroolbark College
P22 Partnership



The Rolling Hills Primary School

Craig Bradley - Principal

Mooroolbark College

Ann Stratford – Principal

James Taylor – Senior School Leader (Maths
KLA Leader - previous)

Jade Hubben – Numeracy Learning
Specialist

Abbie Hansen – Year 7

Transition/Community Relations Leader

Kara Salmon – Maths KLA Leader (current)

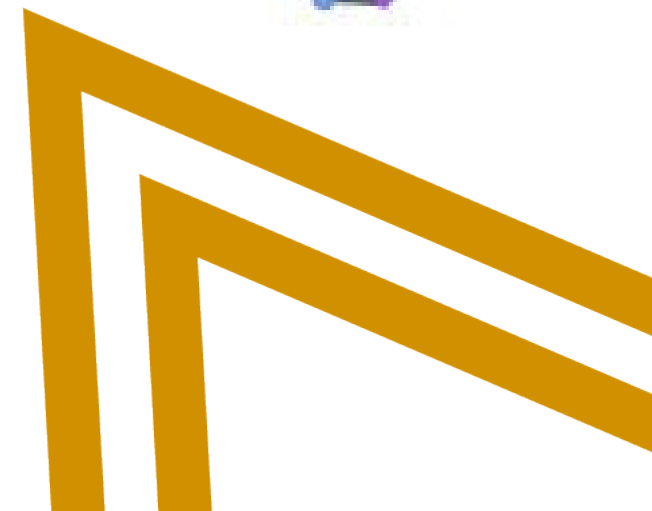
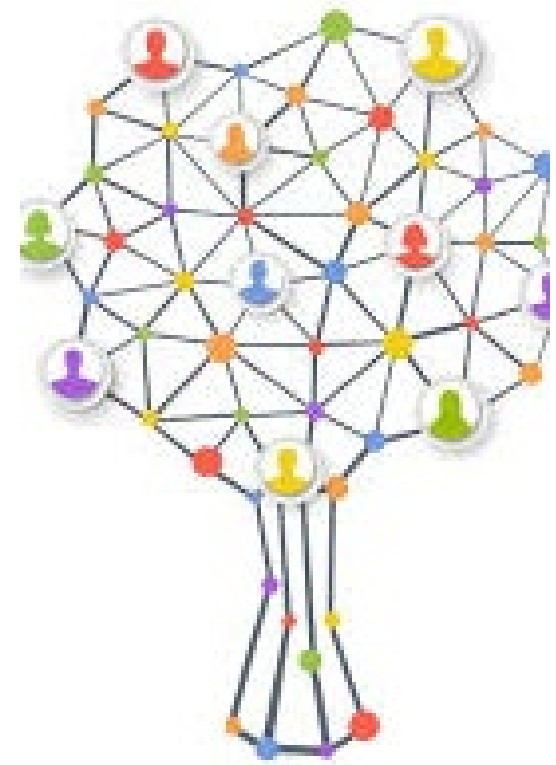


Learning Intention

By the end of this workshop, participants will have:

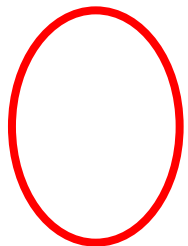
- An understanding of the way schools working together (networking) between Year 6 and Year 7, can improve student outcomes.
- The opportunity to reflect on their own practices in mathematics transition.
- Learnt from our mistakes and our successes.
- Recognised the importance of leadership in making real networks work at a school level.

THE POWER OF
NETWORKING

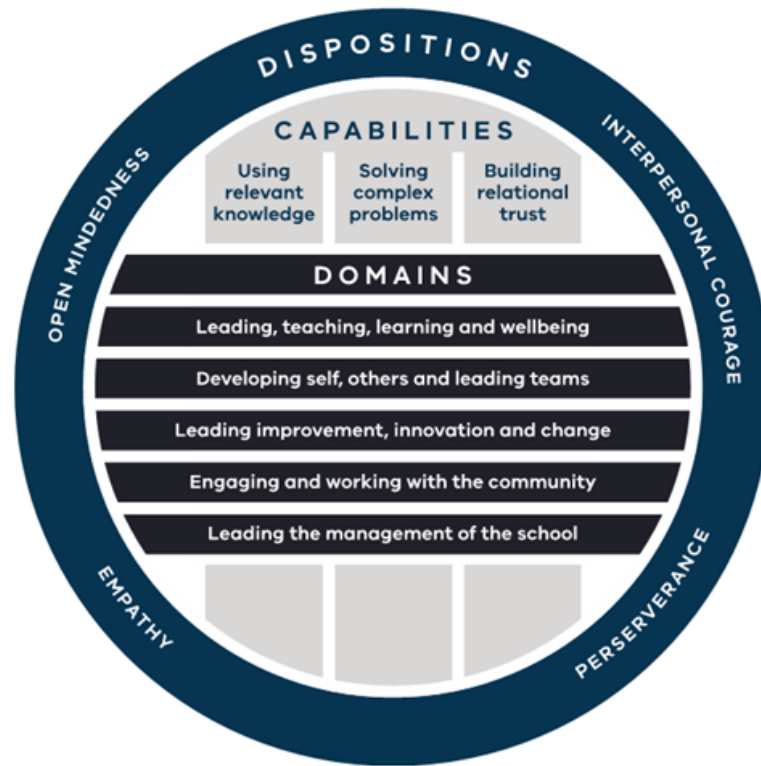


ACADEMY LEADERSHIP EXCELLENCE FRAMEWORK

A yellow arrow indicates which domain we were working in at the time



A red circle indicates which capability we were using at the time.



A green tick indicates which disposition of the framework we were working in at the time.

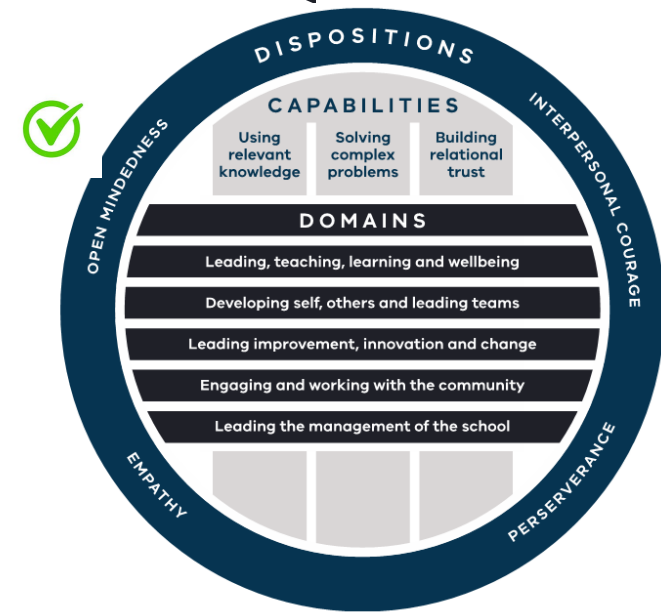
Activity

Reciprocal Teaching Name: _____

1. Predict: Look at the problem; write down what kind of maths you think it is about.	2. Clarify: List all the helpful information from the problem. Write down words you do not understand and record a definition for them. List everything that you need to do to solve the problem.
3. Find the BIG question: What are you asked to work out?	
4. Solve	

Try sketching a picture or a diagram
Write down all of your working out using numbers and words.
Make sure you explain how you got your answer!

5. Reflect: Make at least 3 comments about what you have learned. You can use these or your own:
One thing I can now teach a friend is..
Next time, I..
One thing I have learned is..
A different strategy I could use next time is..
Now I understand..



We needed to use the dispositions of 'Open Mindedness' from leadership to try something different.

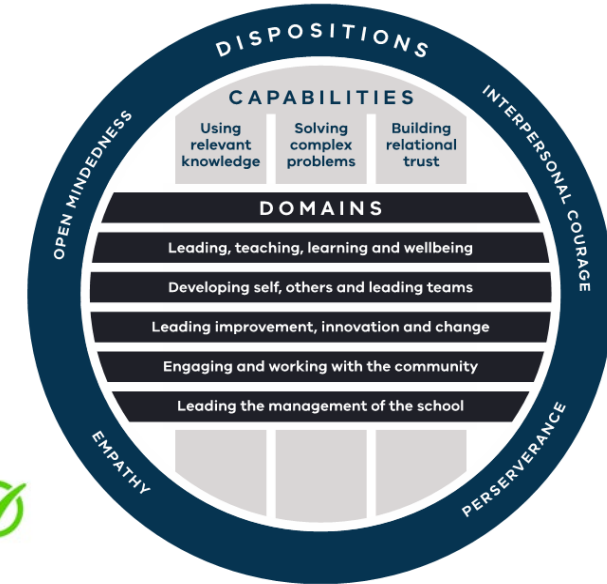
Activity

Reciprocal Teaching Name: _____

1. Predict: Look at the problem; write down what kind of maths you think it is about	2. Clarify: List all the helpful information from the problem. <i>Write down words you do not understand and record a definition for them.</i> List everything that you need to do to solve the problem.
3. Find the BIG question: What are you asked to work out?	
4. Solve	

Try sketching a picture or a diagram
Write down all of your working out using numbers and words.
Make sure you explain how you got your answer!

5. Reflect: Make at least 3 comments about what you have learned.
You can use these or your own:
One thing I can now teach a friend is...
Next time, I...
One thing I have learned is...
A different strategy I could use next time is...
Now I understand...



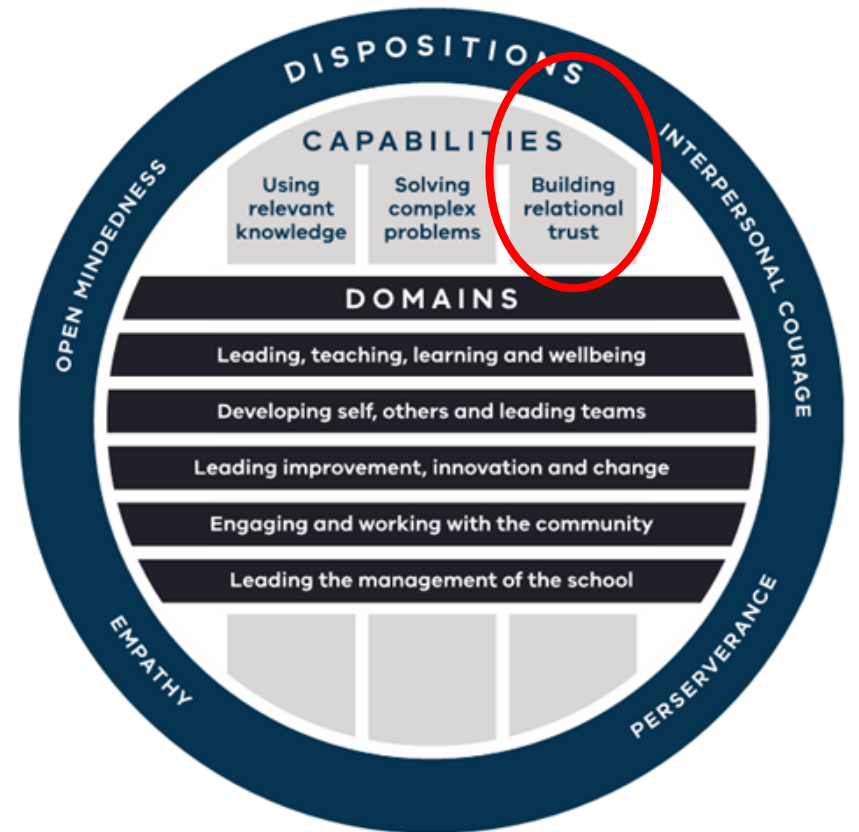
We needed to use the disposition of 'Empathy' from leadership to understand the mathematics experience for students and the experience of staff.

Background - Why Mooroolbark College and Rolling Hills Primary School?

The Principals needed to work together to use their capacity to 'build relational trust' between the staff of the two schools.

In 2022, School Education Improvement Leaders (SEIL) were asked to nominate a primary and a secondary school to work together to improve Numeracy outcomes through the Communities of Practice model, (CoP). This was called Project 22.

Deidre (Dee) Deklijn the Lilydale Network SEIL opted to choose two schools that were already performing above similar schools, based on NAPLAN results over the preceding years.



Background - Why Mooroolbark College and Rolling Hills Primary School?

With the support of Dee, both Principals, Ann Stratford and Craig Bradley, were keen to find out what High Impact Teaching Strategies and mathematical pedagogies were commonly being used across the schools that supported higher outcomes for students.

Rolling Hills Primary School has around 30% of the grade 6 cohort attend Mooroolbark College. Helping support a smooth transition was also a project aim.



Building relational trust in a school partnership involving two school teams

Accountability



Demonstrated by school leaders



Resource sharing (regular) Data sharing (regular)



Peer observation



Joint reflection using protocols



Distributed Leadership



Inquiry/Openness





SCHOOL IMPROVEMENT TEAM STRUCTURE 2024

School Improvement Team			
<p>The School Improvement Team (SIT) builds teacher and leadership capacity and drives a culture of learning at Mooroolbark College. It undertakes the crucial role of developing, overseeing, and evaluating the effectiveness and impact of the College's Strategic Plan and Annual Implementation Plan (AIP) from a whole school perspective.</p> <p>Led by: Ann Stratford – Principal</p> <p>Members: Principal Class, Director of Curriculum, Student Achievement Leader, House Leaders, Senior School Leader, Transition and Community Engagement Leader, Timetable and Data Leader, Student Welfare Leader, Learning Specialists, Link Leader, Business Managers, Curriculum Support Leader</p>			
School Improvement Team Executives			
<p>The Executives have responsibility for leading the strategic planning process and providing clear and achievable goals and targets. Each executive is a subgroup of the SIT and has a focus on leading and evaluating the high-level actions (Key Improvement Strategies) to achieve the Strategic Goals of the College and the AIP on an annual basis. The Improvement Team Executives are responsible for recommendations of policy changes.</p>			
Teaching and Learning Executive	Professional Learning Executive	Wellbeing Executive	Education Support Executive
<p>Led by: Rachael Williams</p> <p>Members: Assistant Principals, Director of Curriculum, Learning Specialists, Senior School Leader, Student Achievement Leader, Transition and Community Engagement Leader, Senior School Implementation and Pathways Leader</p>	<p>Led by: Samantha McIntosh</p> <p>Members: Principal Class, Learning Specialists, Director of Curriculum, Senior School Leader, Senior School Implementation Leader and the Transition and Community Relations Leader.</p>	<p>Led by: Adam Lorkin</p> <p>Members: Principal Class, House Leaders, Senior School Leader, Student Wellbeing Leader, Curriculum Support Leader</p>	<p>Led by: Samantha McIntosh</p> <p>Members: Principal Class, Human Resources Manager/Office Manager, Canteen Manager, Curriculum Support Leader, ICT, Daily Organiser, Science Technician,</p>
Improvement Teams			
<p>Improvement Teams have the function of managing the planning, implementation and review of operational functions at the College in consultation with the School Improvement Executive Teams. Their purpose is to support the goals and targets of the Strategic Plan and AIP.</p>			
Curriculum Improvement Team	Senior School Improvement Team	SWPBS Team	Administration Improvement Team
<p>Led by: Matthew Coghlan – Director of Curriculum</p> <p>Members: Principal Class, KLA Leaders and the Senior School Leader</p>	<p>Led by: James Taylor – Senior School Leader</p> <p>Members: Principal Class, Director of Curriculum, Student Programs Leader and Senior School Implementation and Pathways Leader</p>	<p>Led by: Adam Lorkin – Assistant Principal – Student Wellbeing and Engagement</p> <p>Members: Principal Class, House Leaders and Student Services Leader</p>	<p>Led by: Office Manager</p> <p>Members: Office/Student Administration staff</p>
Literacy Improvement Team		House Meeting	
<p>Led by: Tyrone Ingham – Learning Specialist – Literacy</p> <p>Members: Principal Class, English KLA Leader, Director of Curriculum and teaching staff as required.</p>			<p>Led by: Adam Lorkin</p> <p>Members: Principal Class, Student Wellbeing Leader and House Staff</p>
Numeracy Improvement Team			
<p>Led by: Jade Hubben - Learning Specialist – Numeracy</p> <p>Members: Principal Class, Mathematics KLA Leader, Director of Curriculum and Maths KLA staff as required.</p>			
Curriculum Lead Team			
<p>Led by: Rachael Williams</p> <p>Members: Principal Class, Transition, Senior School, and Curriculum Director</p>			

Operational Teams			
<p>The function of an operational team is to focus on the day-to-day implementation of the Strategic Plan and AIP through daily continuous improvement and problem solving to support the actions identified by the SIT and Improvement Teams.</p>			
EAL Team	Professional Learning Communities	House Teams	Administration Team Meetings
<p>Led by: Multi Cultural Inclusion Leader</p> <p>Members: Principal Class, Student Wellbeing Leader, MEA(s)</p>	<p>Led by: PLC Link Leader</p> <p>Members: All teaching staff</p>	<p>Led by: House Leaders</p> <p>Members: Cluster Leaders, Pathways Counsellor and Learning Mentor</p>	<p>Led by: Kellie Preyer - Office Manager</p> <p>Members: Function specific team members</p>
KLA Teams	Pathways Team	Student Wellbeing Team	Facilities
<p>Led by: KLA Leaders</p> <p>Members: KLA Staff</p>	<p>Led by: Jenny Roache – VCE Implementation and Pathways</p> <p>Members: Principal Class and Pathways Counsellors</p>	<p>Led by: Sarah Coghlan – Student Wellbeing Leader</p> <p>Members: Principal Class, Mental Health Practitioners, Counsellors and Chaplain</p>	<p>Led by: Jodi Mathieson – Business Manager</p> <p>Members: Principal Class, Business Managers, Facilities and Grounds Staff</p>
Intervention Team	Events Team		Curriculum Support Improvement Team
<p>Led by: Belinda Cannington – Student Achievement Leader</p> <p>Members: Principal Class, MYLNS Staff, Tutors and Learning Mentors</p>	<p>Led by: Naomi Hocking – Daily Organiser</p> <p>Members: Principal Class, Student Administration and Business Manager</p>		<p>Led by: Curriculum Support Leader</p> <p>Members: Principal Class, and Curriculum Support Staff</p>
Community Relations			Information Communication and Technology
<p>Led by: Abbie Hansen – Transition and Community Relations</p> <p>Members: Principal Class, Social Media Coordinator, Student Agency and Leadership and other invited staff</p>			<p>Led by: Nicole Davis – Business Manager</p> <p>Members: Principal Class, Business Mangers and ICT staff</p>

Developing self, others and leading teams – Numeracy Improvement Team provides opportunities for participation and growth

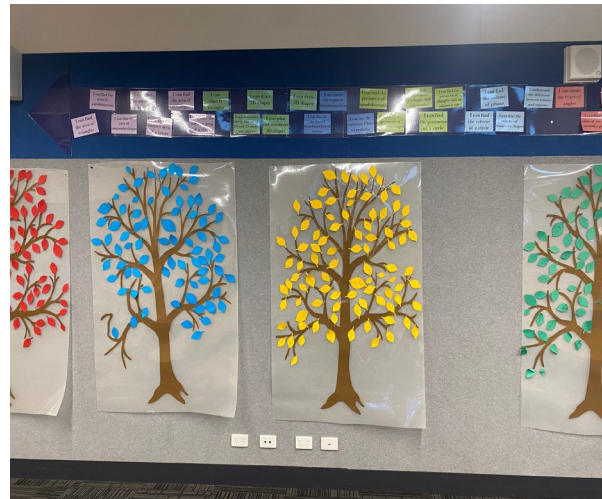
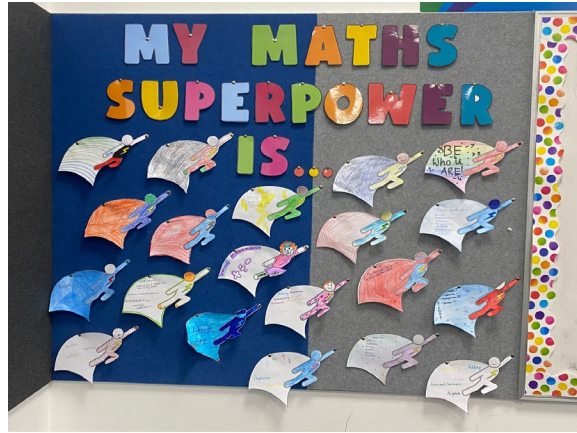
Leading and Managing the School – SIT Structure and alignment

Our Numeracy Journey – Mooroolbark College

- Mooroolbark College Numeracy Program
 - Launched in 2017
 - Year 7 and 8 Mathematics and Numeracy split into separate classes
 - Provided protected time for teaching Numeracy
 - Numeracy team worked extensively with Emeritus Professor Peter Sullivan
 - Development of Open-Ended Numeracy tasks and student reflection in Numeracy Journals
 - Students developed Learning Goals to help differentiation and increase student agency in Mathematics
 - Incorporation of OnDemand testing to improve teacher judgements on Victorian Curriculum Continuum

Year 7 Transition – Mooroolbark College

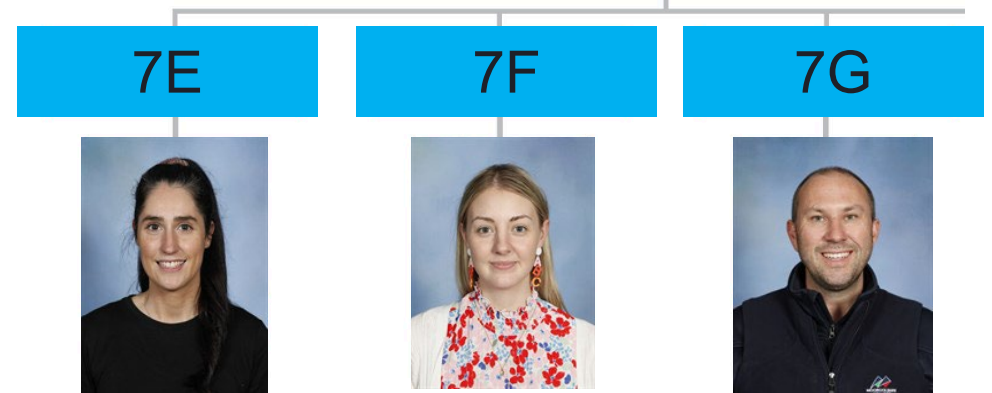
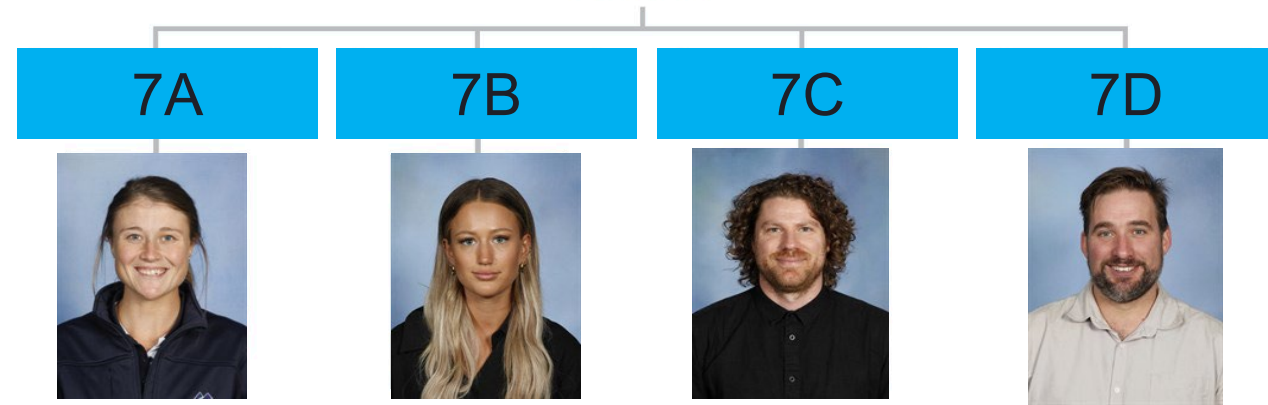
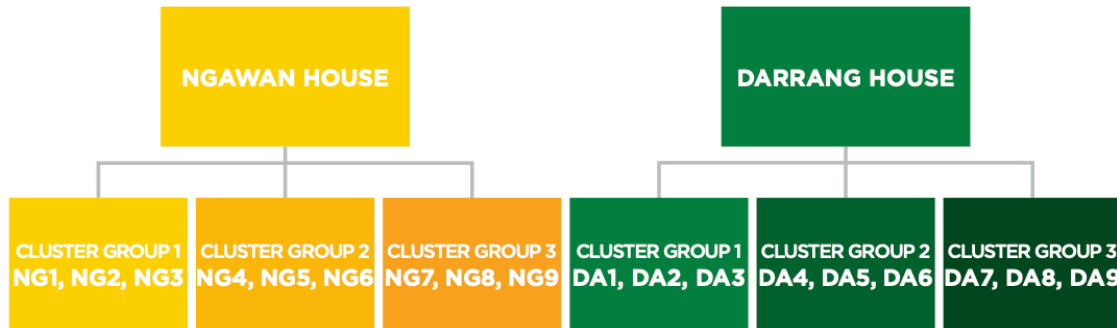
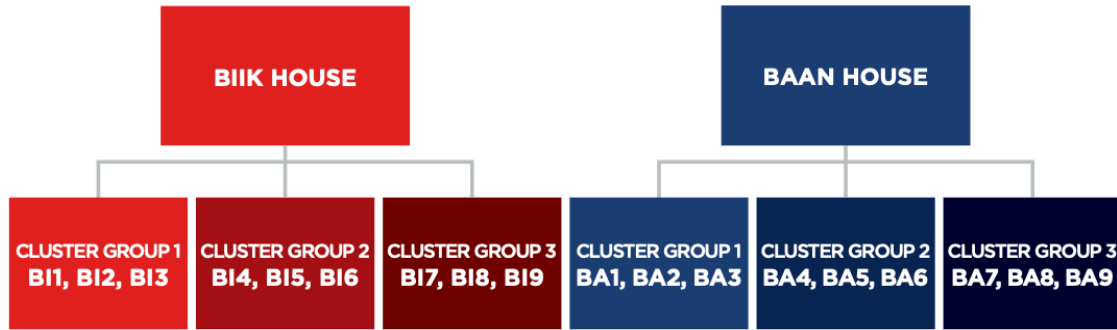
Discovery Centre:
Dedicated year
7 learning space



Interpersonal Courage – We had the courage to have faith in the relationships built within the school to take a resource away from another stakeholder.



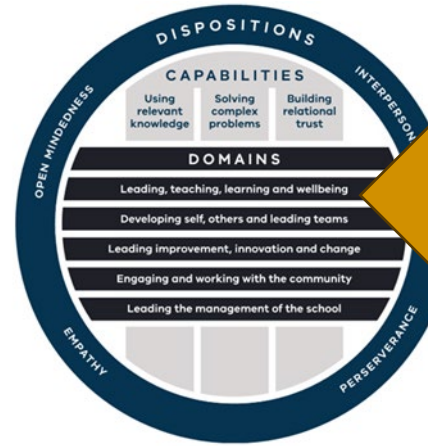
Transition Mentors



Supporting student transitions

Year 7 Transition

- 3 day Year 7 start-up initiative
- Year 7 Ready to Learn Program



Leading Teaching, Learning and Wellbeing – We knew it would result in improved outcomes



‘YEAR 7 RESILIENCE’ ‘READY TO LEARN’ Tuesday 31 st January 2024			
Period	7A	7B, 7C, 7D	7E, 7F, 7G
8.44am - HOMEGROUP EXTENDED INTO PERIOD 1			
1 9.00am	All groups meet in T Block for a formal welcome From 9:25 House Meeting: <ul style="list-style-type: none"> In house groups, get to know your year 7 peers and your House Leader/Cluster Coordinator. What are the Mooroolbark Values, what do they mean, how to earn merits, Principals awards, SWPB. Locker allocation, timetable, get to know you activities. Planners 		
2 9.57am	Literacy Activity IR – Books setup 	The Maths Show 	ICT Setup Session
RECESS			
3 11.19am	The Maths Show 	Literacy Activity IR – Books setup 	The Maths Show
4 12.16pm	ICT Setup Session 	ICT Setup Session 	Literacy Activity IR – Books setup
LUNCH			
5 1.58pm	Inter House competition Year 7 students to earn the first house points for 2023. School Wide Positive Behaviour – Resilience 		



READY TO LEARN

PREPARING STUDENTS

In an effort to help our year 7 students stay organised, each student will receive 5 coloured folders for a designated subject

All materials such as their exercise book and textbook can be placed inside



THE COLOURS

The GREEN folder is for SCIENCE

The RED folder is for Mathematics

The BLUE folder is for ENGLISH

The ORANGE folder is for HUMANITIES

The BLACK folder is for everything else

Maintaining engagement and resilience during the Year 6-7 Transition



Students complete a Pre-test to gain an understanding of their prior knowledge. This also aids with differentiation in the classroom.

At the end of the teaching unit, students complete a Post-test and receive their VC Level, as well as the overall growth shown for the unit.

Growth is celebrated as **all students can achieve growth!**

Year 7 Measurement and Geometry Pre-Test

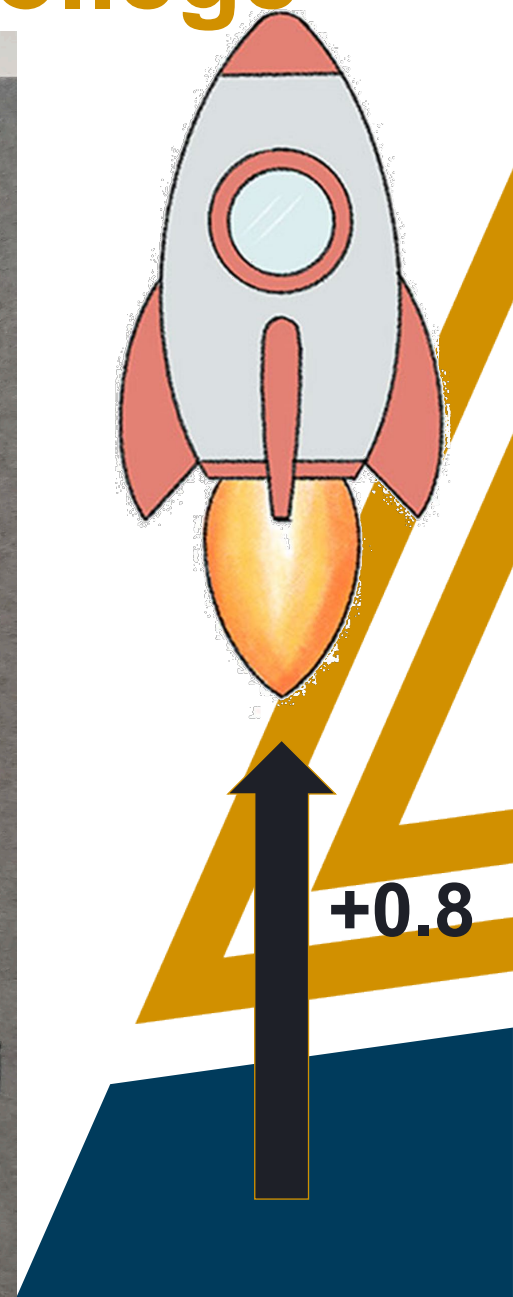
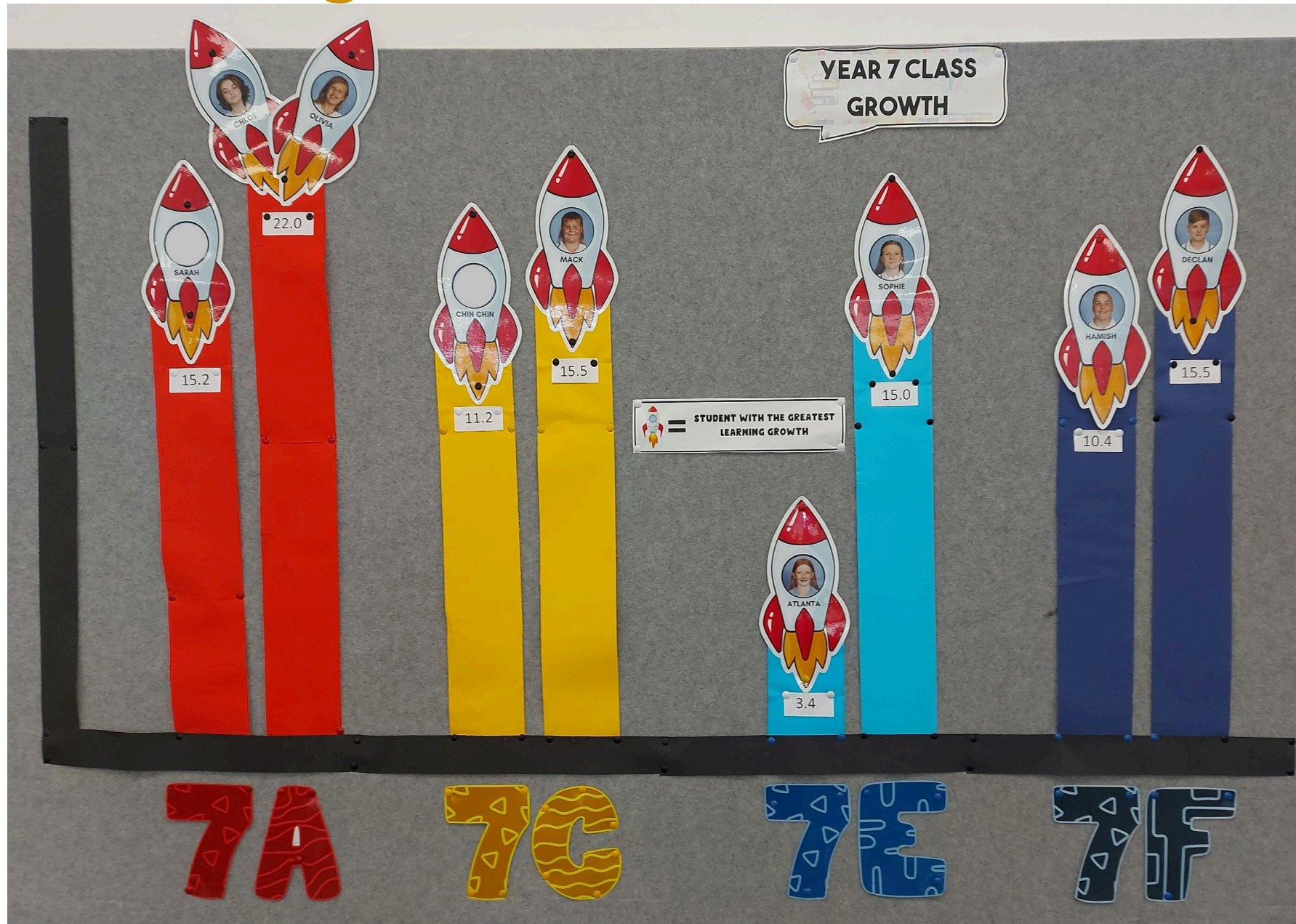
Structure of Test Questions

Section	Description of section	Number of marks
Pink	Level 5	10
Purple	Level 6	10
Orange	Level 7	10
Blue	Level 8	10
TOTAL		40

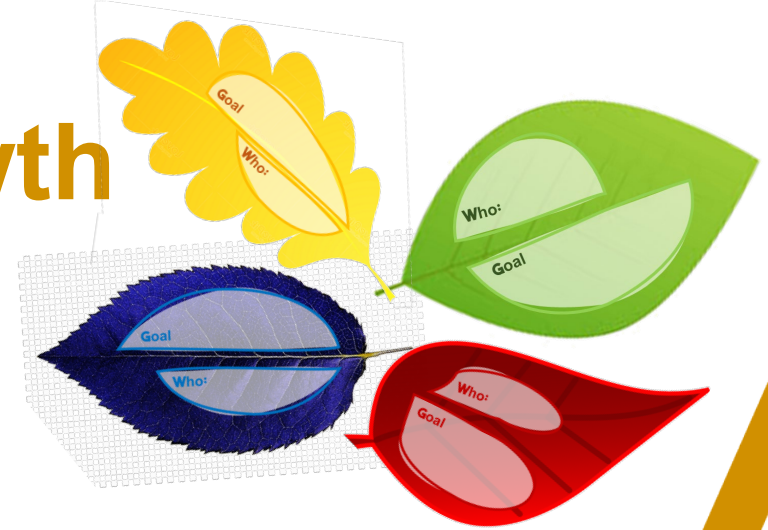


A shift away from "I'm bad at Maths" to "If I work hard, I can get better at Maths"

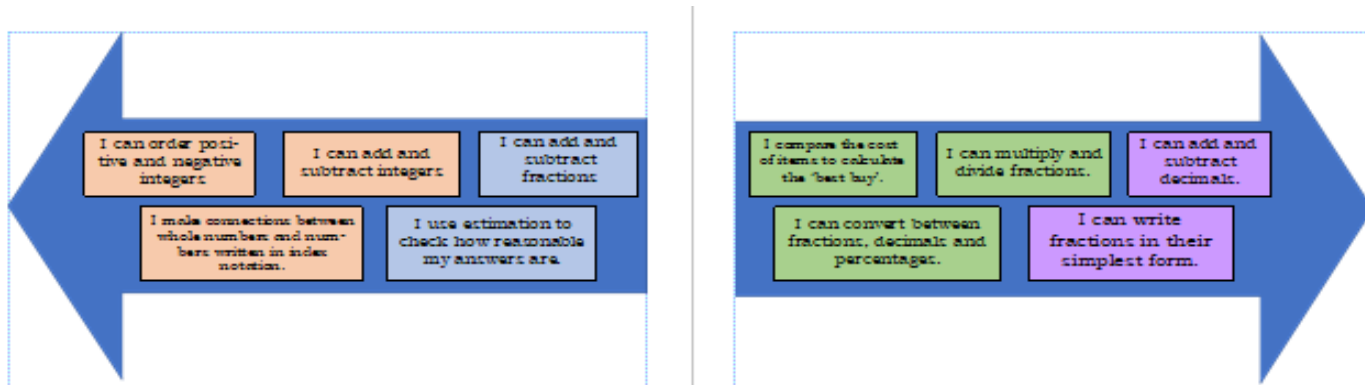
Celebrating Growth – Mooroolbark College



Learning Goals - supporting growth

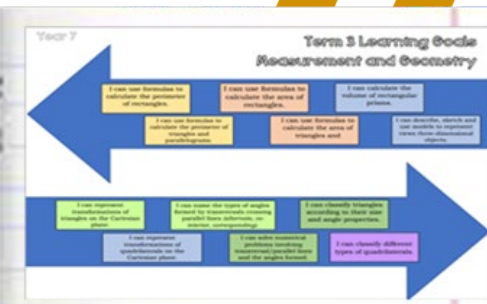


- Promotes student voice and agency.
- Using the pre-test, teacher feedback and student interest, students develop their own SMART goal.
- Work independently on their goal using a variety of resources and teacher support.
- Self-reflection on their achievement/success.
- Celebration of completion using House-coloured leaves.



S.M.A.R.T. Goals

Specific	Specific means that your goal is detailed and exact. It can answer the question who, what, where, why and when.
Measurable	Measurable means that you can track your progress and know exactly when your goal is met. It usually involves numbers.
Attainable	Attainable means that your goal is a reasonable one. It is not completely out of reach, or too easy for you.
Relevant	Relevant means that your goal is worthwhile. It is something that is actually important to you right now.
Timely	Timely means that your goal will be accomplished in a set time frame, such as two weeks, three months or one year.



My Learning goal is...

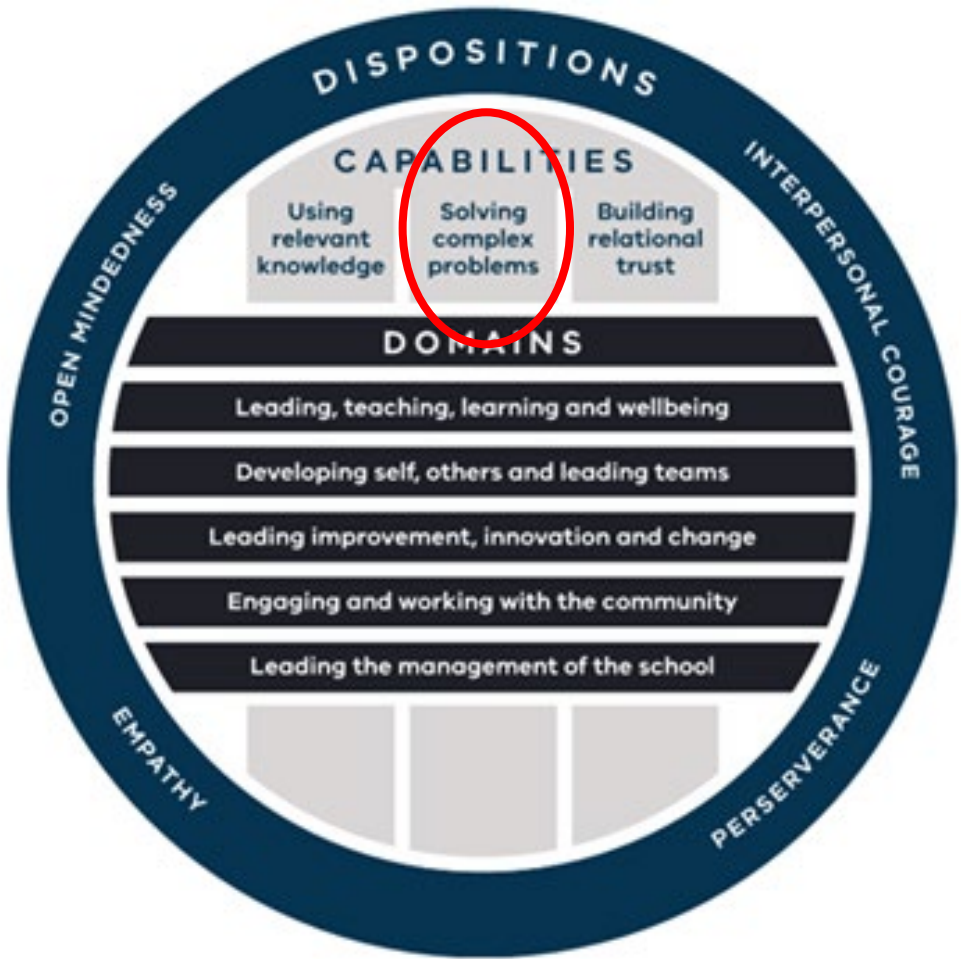
I will be able to calculate area of shapes by the end of week 1 by using the canvas pages, videos from my teacher, my textbook and working in class. I will know when I have achieved this when I complete 5 practice question in my book with the correct answers.

Celebrating Achievements



Capability – Solving Complex Problems.

Why students lose mathematics confidence between Primary & Secondary school is a complex problem. We haven't given up trying to solve it.



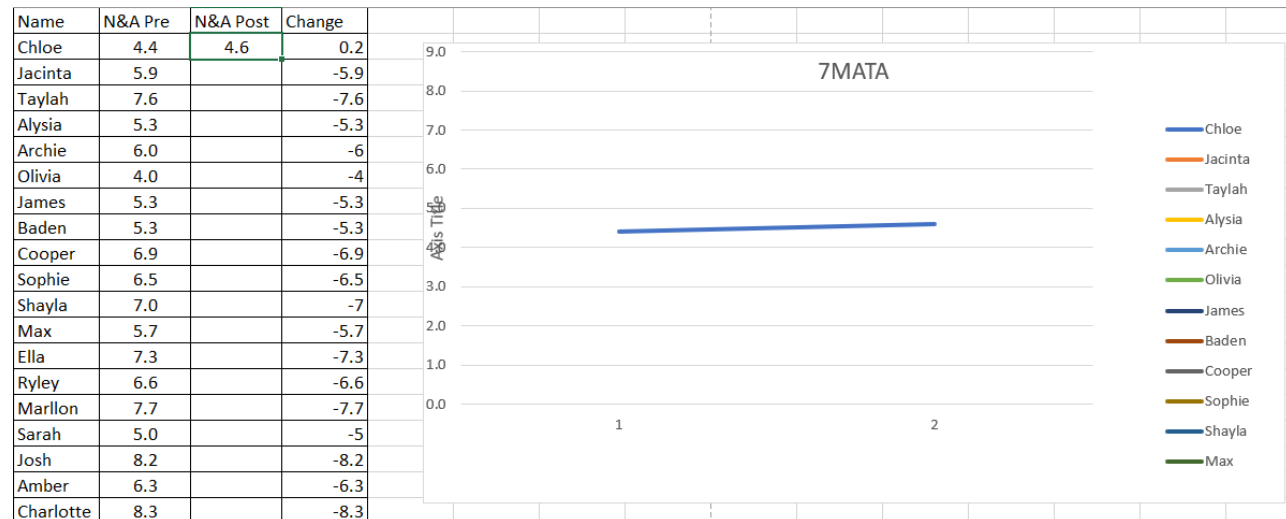
Curriculum Changes – Assessment

Develop Confident and Resilient Learners

“Max, you have shown an increase in an understanding of your Number skills this term, this is evidenced by the growth you have shown this term.”

Assessment changes

- Students are assessed against progressive developmental rubrics.
- Students and parents are aware of current levels of understanding.
- Growth is celebrated at any level.



Curriculum Changes – Mathematics at Mooroolbark

 MATHS AT MOOROOLBARK COLLEGE	Numeracy Lessons		<p>Connection to the real world</p> <p>In these lessons we explore different types of problems you might see in the real world. Like selecting the best gym membership or simplifying a huge McDonalds order!</p> <p>You will be collaborating with peers and working individually to solve problems and apply your maths skills.</p> <p>You will have a Booklet to show all your working out and a small area to write a reflection about your thought process.</p>	<p>Success criteria</p> <ul style="list-style-type: none"> - I can problem solve in different ways. - I can collaborate with my peers. - I can explain my reasoning. - I can reflect on my thought process. - I can apply my understanding to new concepts. 	<p>Once a week</p>
	Learning goals		<p>Ownership over your own learning</p> <p>Learning Goals is all about you and how you learn best.</p> <p>You will write down your own goal and decide on how you want to achieve it!</p> <p>You will navigate your own resources to work towards achieving this your goal.</p> <p>This is completed in the back of your maths book.</p>	<p>Success criteria</p> <ul style="list-style-type: none"> - I can solve problems independently - I can find answers to my questions. from multiple sources of information. - I can demonstrate my understanding of a skill. - I will be resilient and endeavour to do my best. - 	<p>Once a fortnight</p>
	Maths Lessons		<p>The foundations of Mathematical concepts</p> <p>This is where you will learn mathematical concepts, knowledge, and skills through a variety of activities. You will develop fluency in your knowledge and understand how to carry out correct procedures. You will be challenged to problem-solve by making correct choices and justify your answers with reasoning.</p> <p>Students will also be completing weekly Homework Tasks in Year 7</p>	<p>Success Criteria</p> <ul style="list-style-type: none"> - I can demonstrate my understanding of a skill. - I can solve problems in multiple ways. - I can apply my knowledge to different concepts. - I can memorise important mathematical concepts. - I will complete homework 	<p>7 periods a fortnight</p>
	<p>Where to get help?</p>			<p>Ask a friend, ask a mentor, ask a tutor, ask a teacher, attend club ¾!</p>	<p>Club ¼, Runs Tuesday and Thursdays in the Wellbeing centre</p>

Curriculum Changes – Numeracy Program

Develop confident and resilient learners

Dedicated Numeracy Program

- Critical thinking and problem-solving skills
- Connection to real world
- Differentiation between Maths and Numeracy
- Understanding the importance of Numeracy

Numeracy Lessons

- Reflection journals
- Open ended tasks
- Hands-on problem solving and reasoning
- Differentiated tasks – low floor, high ceiling

DATE: 10/5/24 TOPIC/ACTIVITY: RUNNING RATE THIS ACTIVITY: ★★★★★

WORKING OUT

Taylor - 4 seconds = 20m 9 seconds = 50m
 Jacinta - 4 seconds = 20m 9 seconds = 50m
 Me - 4 seconds = 20m 10 seconds = 50m

Taylor average m/s = 5 m/s 5.6 m/s
 Jacinta average m/s = 5 m/s 5.6 m/s
 Me - average m/s = 5 m/s

x	0	2	4	6	8	10	12	14	16	18	20
y	100	90	80	70	60	50	40	30	20	10	0

DRAW A PICTURE OR DIAGRAM

REFLECTION: WHAT WOULD HAVE MADE YOU MORE INTERESTED (PAY MORE ATTENTION) TO TODAY'S TASK?

I really enjoyed this numeracy lesson because being outside was really fun and was much better than sitting down in a classroom. I didn't like that the lines were so close together because lots of people were very close when I was running. To achieve this activity I used my knowledge of cartesian planes and gradients.

DATE: 12/6/24 TOPIC/ACTIVITY: best price RATE THIS ACTIVITY: ★★★★★

WORKING OUT

• Pour an even amount of water on fabric
 • use two sheets of each paper towel
 • wipe up water and see absorbency

Materials

- water
- paper towel
- tape
- pipette

notes: very thin ripped when picked up
 handee: in-between coils and was still water residue
 Viva: no water residue still really strong

Ratio Questions Sophie 84

There are 10 cats for every 5 dogs in the vet. There are 50 dogs in the vet. How many cats are there?

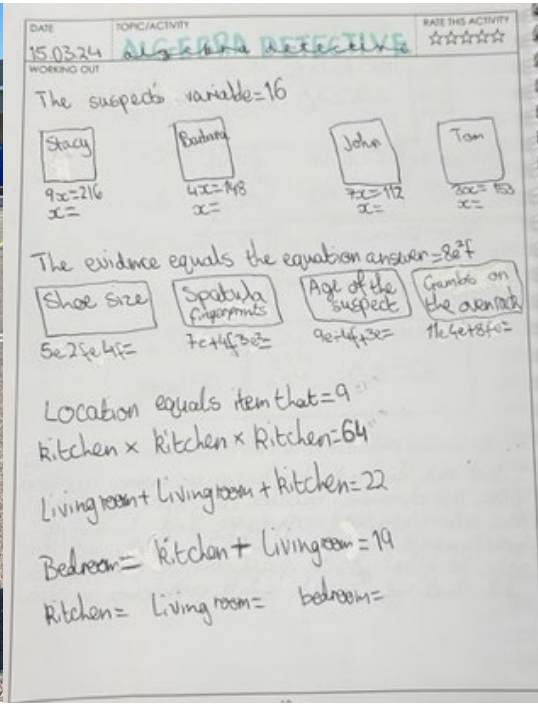
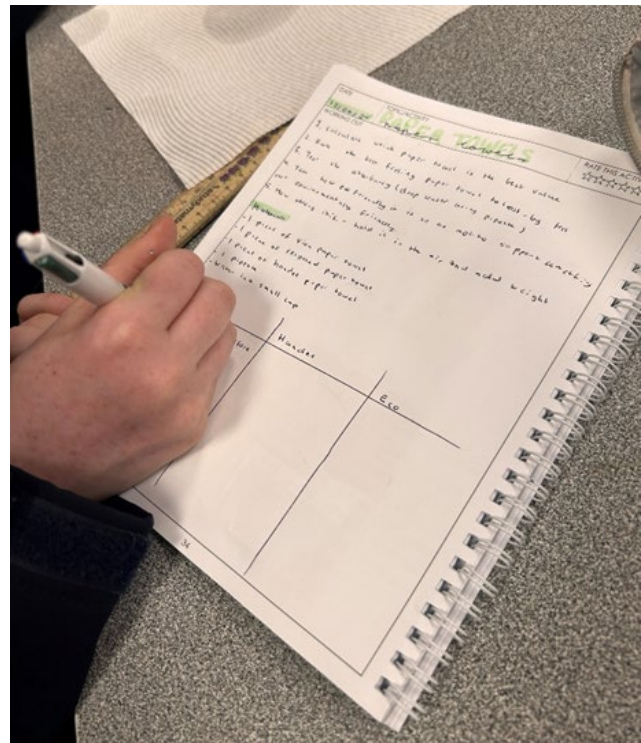
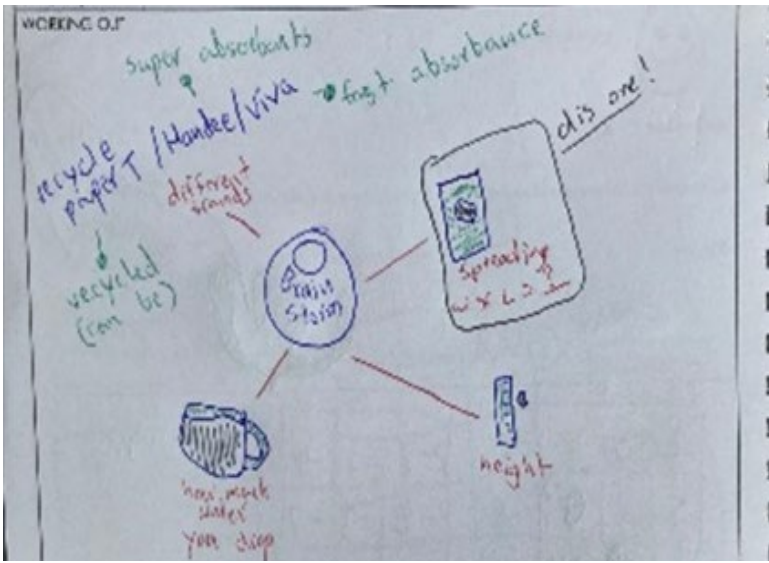
In the class there are 30 children. Each child has 2 pencil cases. In every pencil case there are 3 rulers. How many rulers are in the classroom?

In a cherry orchard there are 100 trees. Each tree there are 150 cherries. How many cherries are there in the orchard?

There are 30 crayons in a box. An artist has 15 boxes. How many crayons does the artist have?

Unfold to reveal answers...

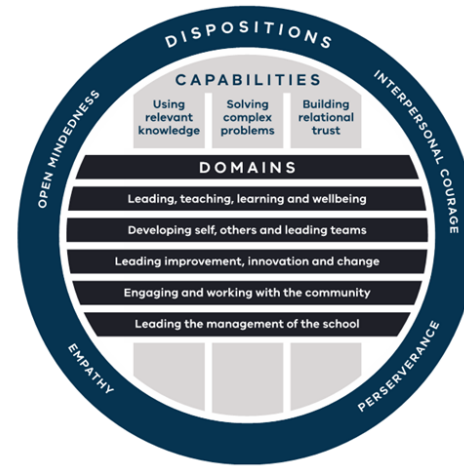
1 500	2 180	3 15000	4 450
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Curriculum Changes – Professional Development

Professional Development (Numeracy across the curriculum)

- Built on previous professional learning (Peter Sullivan)
- Increase staff confidence and understanding
- Modelling the learning process
- Tackling Maths Anxiety
- Shared value of Numeracy skills
- Common language



We needed to use the disposition of 'Perseverance' to keep building on previous professional learning.



Numeracy Across the Curriculum

DESIGN & TECHNOLOGY (GRAPHICS)

Scale and Scale Factor

In D&T plan drawings, showing a view from above looking down, are often used for room plans, site plans and maps. They should include compass directions, a key and a scale.

The scale on this plan drawing tells us that each centimetre on the drawing, represents 0.5 metres of the actual length of the building.

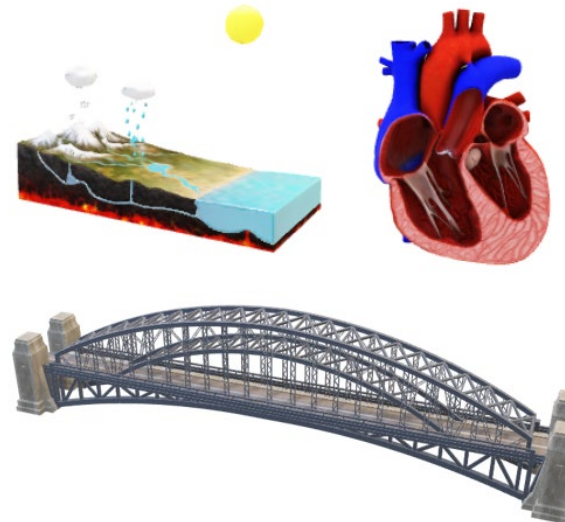
$1 \text{ m} = 100 \text{ cm}$ therefore $0.5 \text{ m} = 50 \text{ cm}$

So the actual building's dimensions are 50 times bigger than those on the drawing, i.e. the scale factor is 50.

From North to South the length of the building on the drawing measures 7 cm. Therefore to work out how long this is in reality we simply multiply by 50.

$7 \times 50 = 350 \text{ cm} = 3.5 \text{ m}$

Scale
1 cm : 0.5 m



NUMBEO

Cost Of Living ▾ Property Prices ▾ Quality Of Life ▾ Premium ▾

Cost of Living > Prices by Country > Potato (1kg) (Markets)

Prices by Country of Potato (1kg) (Markets)

This page allows you to see current prices by country. You can see prices only for countries with a decent number of contributors.

[See bar chart of these data](#)

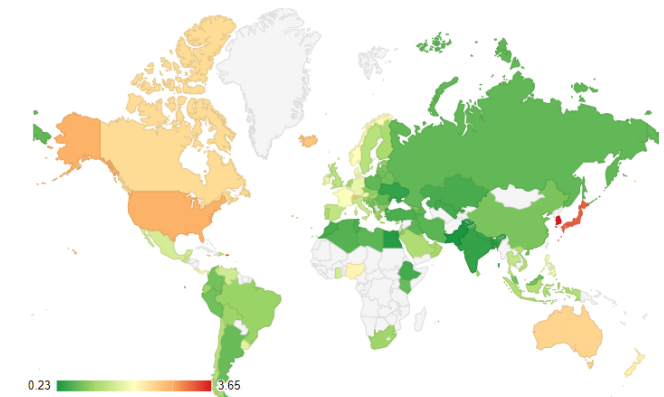


Chart: Potato (1kg), Markets

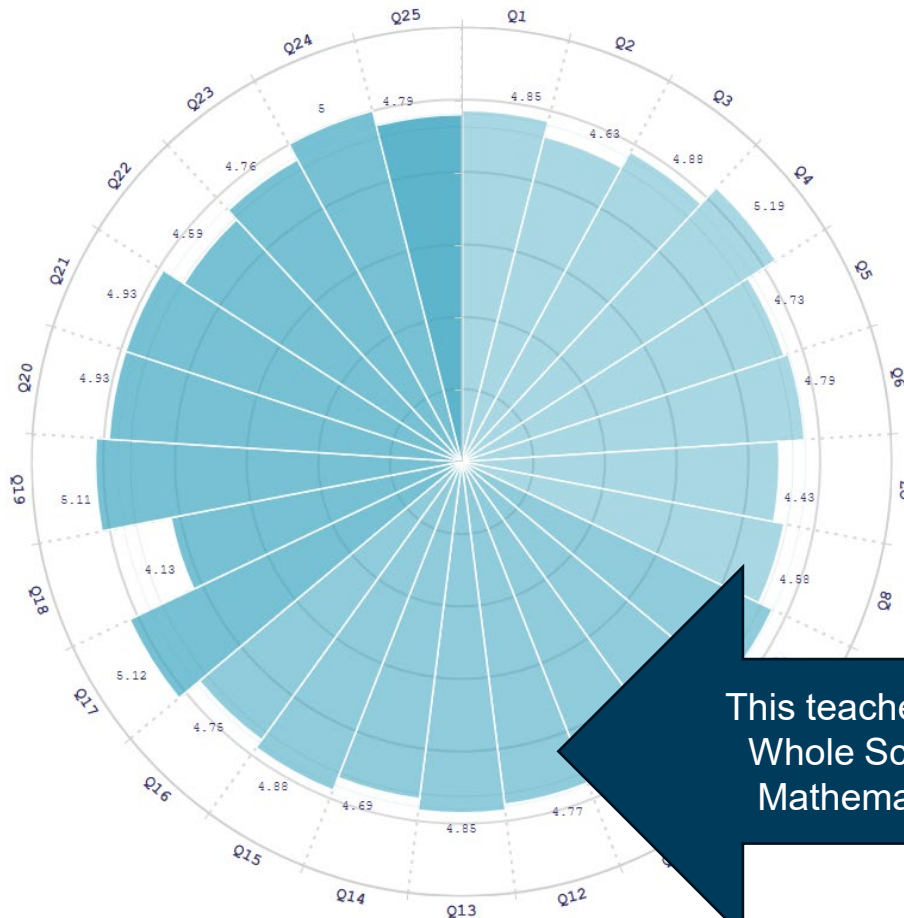
Currency:

Rank	Country	Potato (1kg)
1	South Korea	3.65
2	Puerto Rico	3.30
3	Japan	3.24
4	United States	2.74



FINALLY – DATA IMPROVEMENT

PIVOT Data – Year 7 Goal Setting



This teacher helps me set goals.
Whole School Average – 4.28
Mathematics Average – 4.77

NAPLAN Data – Year 9

NAPLAN - Students by Proficiency Levels 📄

Exceeding or Strong students in 2023 (%) 📄

For students in Year 9, Numeracy

61%
Your school

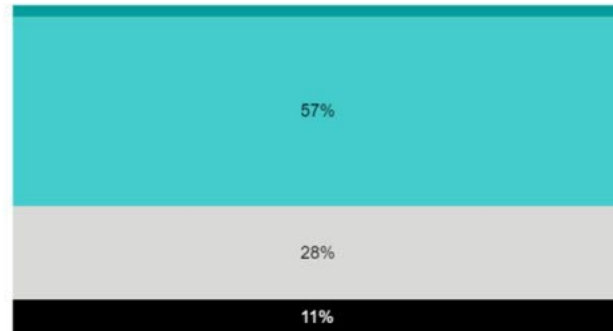
57%
Similar schools

56%
Network

60%
State

Students by proficiency level (%) 📄

For students in Year 9, Numeracy



- Exceeding
- Strong
- Developing
- Needs additional support
- Exempt

PANORAMA

School name: Mooroolbark College

Year level: Year 9

Domain: Numeracy

Links: [NAPLAN reporting and proficiency level information \(ACARA\)](#), [Further Support](#)

NAPLAN - Students by Proficiency Levels 📄

Exceeding or Strong students in 2024 (%) 📄

For students in Year 9, Numeracy

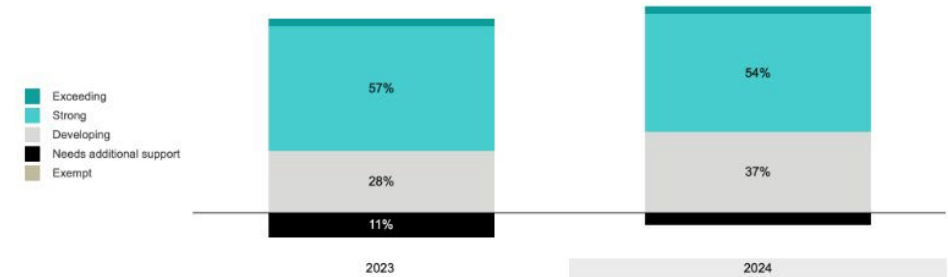
58%
Your school

54%
Similar schools

56%
Network

Students by proficiency level (%) 📄

For students in Year 9, Numeracy



Data breakdown 📄

For students in Year 9, Numeracy

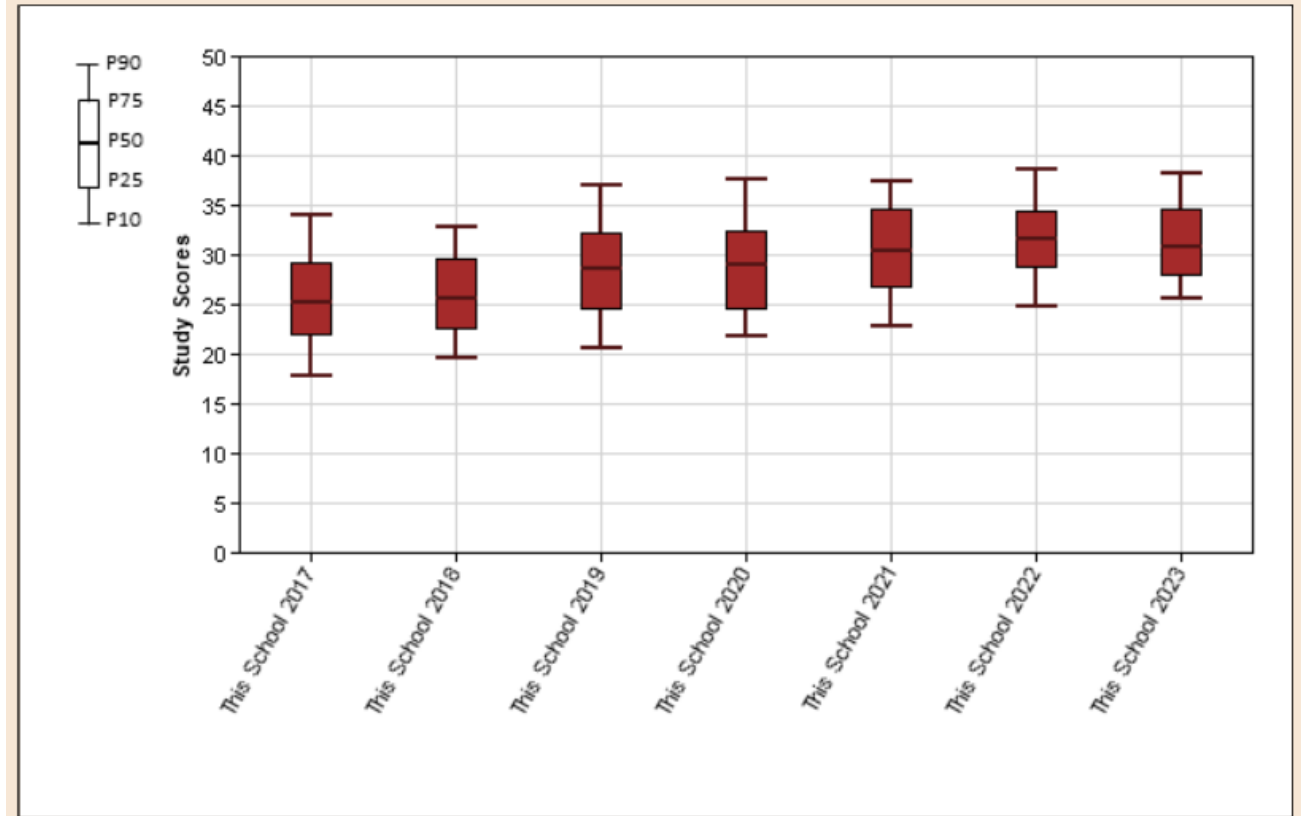
	2023	2024
Mean scale score	544.8	556.6
State mean score	N/A	N/A
Participation Rate	85%	80%
Student Count	189	174

VCE Data

VCE Further/General Mathematics Data
– Average Study Scores 2017 - 2023

Report 9

General Mathematics: (VCAA Study Score x Time)
MOOROOLBARK COLLEGE Home School Data



2017	2018	2019	2020	2021	2022	2023
25.32	26.03	28.62	29.14	30.22	31.56	30.95

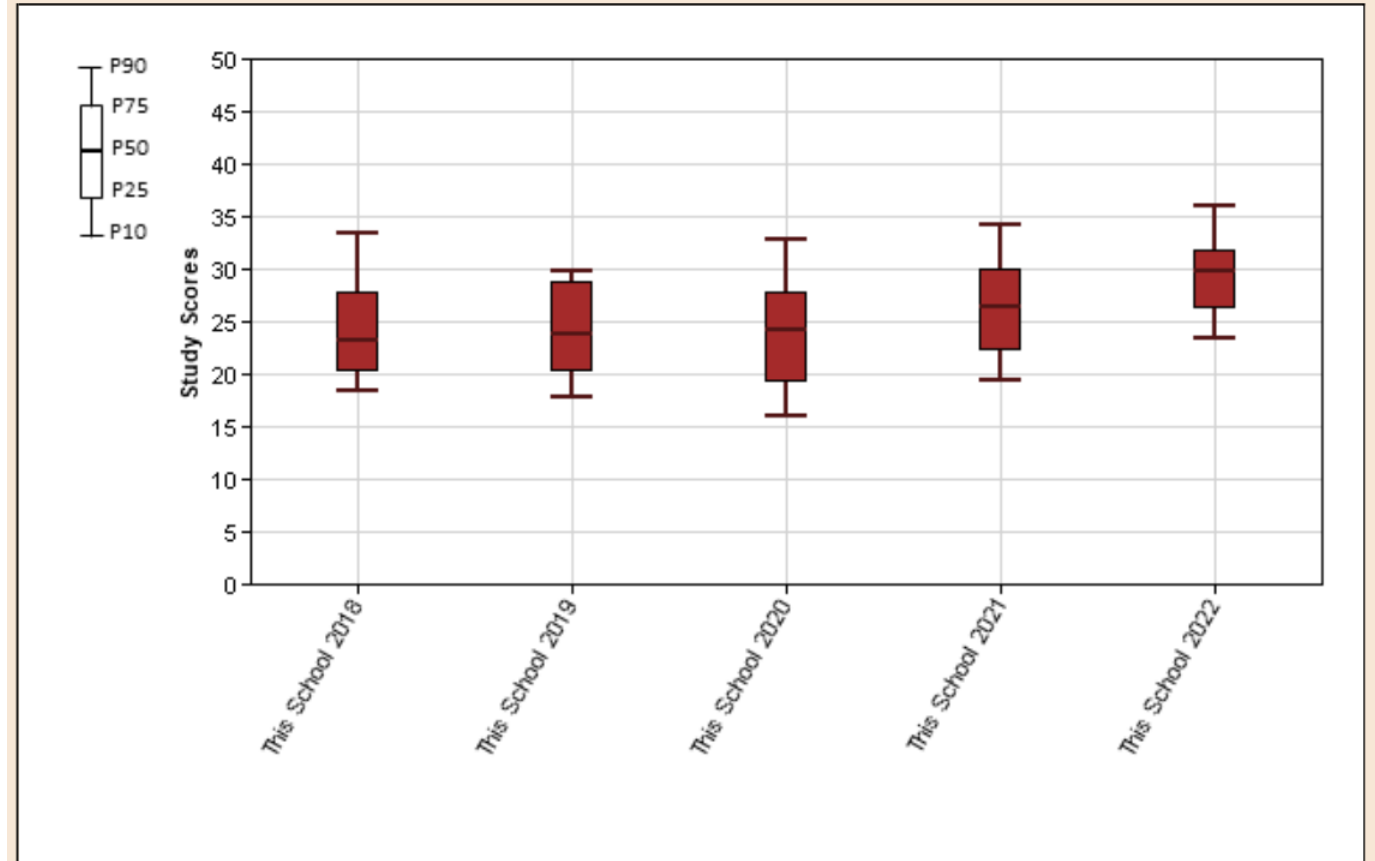
VCE Data

VCE Mathematical Methods Data –
Average Study Scores 2018 - 2022

Report 9

Mathematical Methods: (VCAA Study Score x Time)

MOOROOLBARK COLLEGE Home School Data

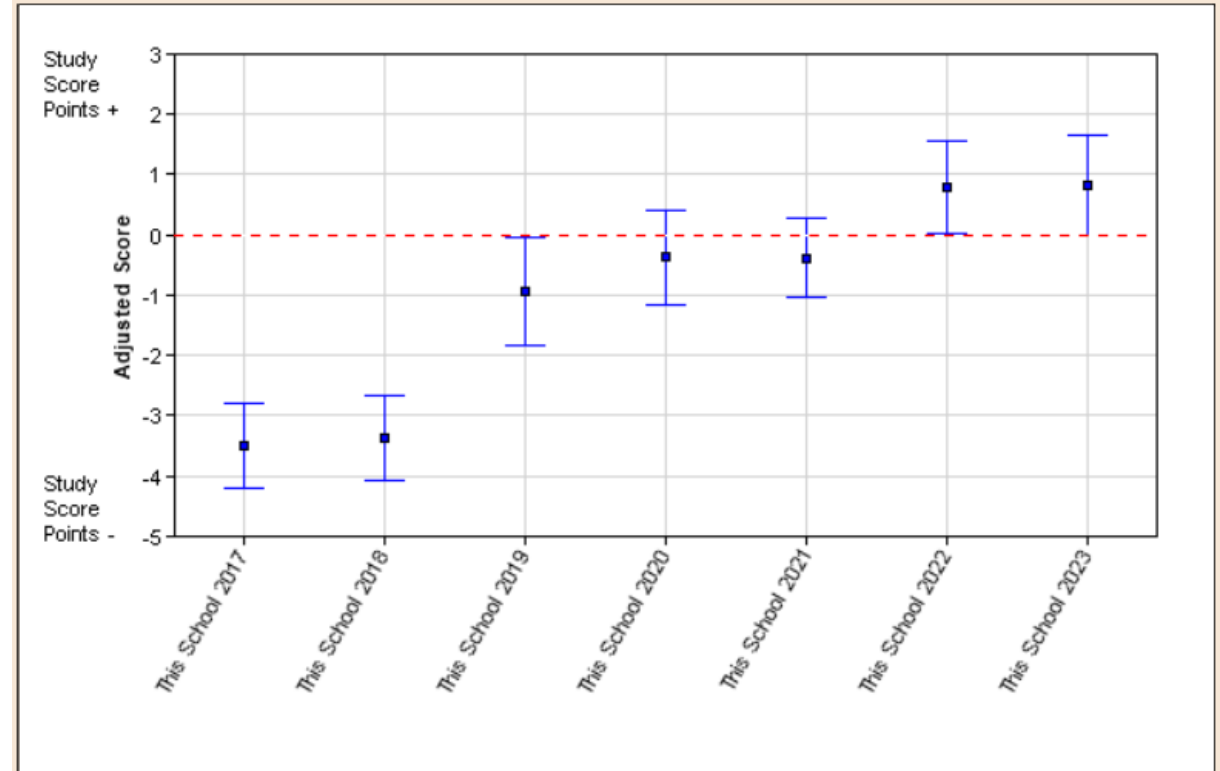


2018	2019	2020	2021	2022
24.4	24.13	24	25.8	29.6

VCE Data

VCE Further/General Mathematics Data
– GAT Differential 2017 - 2023

Report 12
General Mathematics (Adjusted) x Time
MOOROOLBARK COLLEGE Home School Data



2017	2018	2019	2020	2021	2022	2023
-3.5	-3.4	-1.0	-0.4	-0.4	+0.8	+0.9

What next?

Panorama (NAPLAN – Students by bands dashboard) - NAPLAN Year 7 (Numeracy)



NAPLAN - Students by bands ⓘ

School name
Mooroolbark College

Year level
 Year 7
 Year 9

Domain
 Reading
 Writing
 Spelling
 Numeracy
 Grammar and Punctuati...

Top 2 band students in 2022 (%) ⓘ

For students in Year 7, Numeracy

27%
Your school

23%
Similar schools

21%
Network

28%
State

Students by band over last 5 years (%) ⓘ

For students in Year 7, Numeracy



Percentage of students achieving in the Top 2 Bands in 2022 is higher compared to most previous years

Additional Links

[Further Support](#)

Videos

[Dashboard overview](#)

Reports

[SIP_Naplan_Band_Detail](#)

Data breakdown (5 years) ⓘ

For students in Year 7, Numeracy

	2017	2018	2019	2021	2022
Mean scale score	549.0	538.7	538.2	534.1	540.4
Participation rate (%)	89%	92%	95%	89%	84%
Number of students	183	212	231	208	170
Maintaining Top 2 Bands %	79%	66%	74%	60%	



Our Numeracy Journey – Rolling Hills Primary School

- High percentage of students with strong numeracy skills based on grade 3 & 5 NAPLAN results
- Increased teacher data literacy, tracking student growth over time using benchmark testing.
- Use of data to inform planning
- Planning moving from individual responsibility to collaborative approach through privileged time > whole day supported planning
- School agreed instructional model based on explicit instruction
- Differentiation in each lesson for all students
- Options to move to extension and support when key topics arise, example Time
- Reciprocal teaching approach to problem solving
- Weekly guided homework approach for 3-6 squizya

What does this look like?

Documentation is clearly **differentiated** and decided on in collaborative planning sessions. The differentiated groups are data driven and created by Essential Assessment.

We create time for support staff to unpack planning, so they know who they are working with in class.

We have extension and early finisher tasks.

Using the capability of 'using relevant knowledge' was important. Craig having a secondary background/maths was a large advantage.



Session 4 (Separated to support abilities)	LL: We are learning to compare fractions and locate and represent them on a number line.	Split abilities levels across classrooms (one teacher takes Level 3-4, two teachers take Level 5-6, one teacher takes Level 7-8):
	SC I can:	Enabling (Level 3-4): Introduce placing common unit fractions on a number line:

whiteboard, alternatively, demonstrate this on an anchor chart to be displayed in the classroom.

Alternatively, here is a video:
<https://www.youtube.com/watch?v=TLkftswm54A>

At (Level 5-6):
Show clip to demonstrate equivalent fractions on a number line

<https://www.khanacademy.org/math/cc-fourth-grade-math/comparing-fractions-and-equivalent-fractions/imp-equivalent-fractions-2/v/equivalent-fractions-on-number-lines>

Extending (Level 7):
When comparing fractions with different denominators, it is important to consider how they are related and simplify them before considering where they belong on a number line. When considering the fractions $\frac{4}{5}$ and $\frac{4}{10}$, we can simplify $\frac{4}{10}$ to be $\frac{2}{5}$, making it easier to compare and represent these fractions on a number line. You may wish to model further comparisons of fractions:

Level 6:

[Level 6.pdf](#)

Level 7:

[Level 7.pdf](#)

Early finisher tasks:

Enabling (Level 3-4): Draw a number line from 0-1 and compare and order the following fractions: $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{2}{3}$, $\frac{1}{3}$. Encourage students who need additional support to highlight half, quarter, third and fifth sections on the number line in different colours for accuracy.

At (Level 5-6): Draw a line from 0 to 1 and compare and order the following fractions: $\frac{1}{6}$, $\frac{5}{7}$, $\frac{3}{4}$, $\frac{6}{12}$, $\frac{8}{10}$, $\frac{6}{8}$, $\frac{3}{12}$, $\frac{5}{15}$. Simplify fractions where necessary.

Extending (Level 7-8): Draw a number line from -2 to 2 and compare and order the following fractions: $\frac{4}{9}$, $\frac{3}{10}$, $\frac{6}{8}$, $\frac{7}{9}$, $\frac{1}{6}$, $\frac{5}{7}$, $1\frac{1}{2}$, $-\frac{1}{5}$, $-\frac{5}{4}$, $1\frac{4}{5}$, $1\frac{2}{9}$, $-\frac{4}{10}$. Remind students to list 0 as the mid-point of their number line, followed outwards by -1 and 1, finishing with -2 and 2.

What does this look like?

Student Goals setting through 'My Numeracy' feature on Essential Assessment. They are able to work on their goals independently throughout the week.

At grade 3 to 6 they **choose** to participate in a **differentiated homework** approach using software called 'Squizya'

EssentialAssessment

My Learning Goals for:
Number and Algebra

ROGERS Evan
Year 3 

Learning Goal	Understanding	Fluency	Problem Solving	Reasoning
<input type="checkbox"/> I Can: <u>investigate number sequences increasing and decreasing by twos, threes, fives and tens</u> VCMNA103	I can identify number sequences increasing and decreasing by twos, threes, fives and tens from any starting point ☆	I can complete number sequences increasing and decreasing by twos, threes, fives and tens from any starting point ☆	I can use strategies to complete number sequences increasing and decreasing by twos, threes, fives and tens from any starting point ☆	I can describe number sequences increasing and decreasing by twos, threes, fives and tens from any starting point ☆
<input type="checkbox"/> I Can: <u>Recognise model and order numbers</u> VCMNA104	I can recognise numbers to 1000 ☆	I can model numbers to 1000 ☆	I can order numbers to 1000 ☆	I can explain a number location in a number sequence ☆
<input checked="" type="checkbox"/> I Can: <u>Group and partition numbers</u> VCMNA105	I can group numbers when counting ★	I can partition numbers when counting ★	I can rearrange collections when counting ★	I can explain how to group, partition or rearrange numbers ★

<input type="checkbox"/> SG: ORANGE 3	
Annabelle GRASBY Emily SCHILLE	Eden HARTLEY Nevaeh TCHARKHEDIAN
<input type="checkbox"/> SG: ROSE 4	
Jacob BEASLEY-BROWN Cooper PECCENINI Cameron VEILGAARD	Annabel HAMILTON Blake RAY Texas WHITLING

☰ CH.2: Maths Mate Yellow Set 2_2

Q. 11 [Decimals / Fractions] (10 Points)
Which fraction is equal to 0.09?

$\frac{9}{10}$

$\frac{9}{100}$

$\frac{90}{10}$

What does this look like?

Problem Solving through a 'Reciprocal Teaching' approach happens weekly. Students use their data to choose a partner to work with on problems that are set to their agreed level.

The students follow a set of problem solving steps. The questions are often misleading. This helps with NAPLAN and later in VCE math's subjects.

1 Reciprocal Teaching Name: _____

1. Predict: Look at the problem; write down what kind of maths you think it is about

2. Clarify: List all the helpful information from the problem
Write down words you do not understand and record a definition for them
List everything that you need to do to solve the problem

3. Find the BIG question: What are you asked to work out?

4. Solve

Try sketching a picture or a diagram
Write down all of your working out using numbers and words.
Make sure you explain how you got your answer!

5. Reflect: Make at least 3 comments about what you have learned.
You can use these or your own:
One thing I can now teach a friend is...
Next time, I...
One thing I have learned is...
A different strategy I could use next time is...
Now I understand...

Homework Club ★★

The table below shows the number of students who attended homework club this term.

DAILY ATTENDANCE				
	Week 1	Week 2	Week 3	Week 4
Monday	18	30	19	13
Tuesday	11	12	20	27
Wednesday	35	10	15	14
Thursday	19	23	25	21
Friday	28	12	19	11

Which two days were the best attended and which one was the worst?

7.1.3

What does this look like?

Mini-Spotlight and Spotlight sessions are held each week. These are for students identified through teacher judgements.

The students participate in weekly withdrawal classes and have 'different' maths work to undertake. This creates the same feeling that students in support groups have. The students are pushed beyond the comfort zone, and they encouraged to be comfortable with mistakes.

Student '**support**' groups happen before school and during lunchtimes.



What changed at Rolling Hills Primary School



The introduction of Spotlight and 'extension tasks' each lesson so that students are ready for year 7.

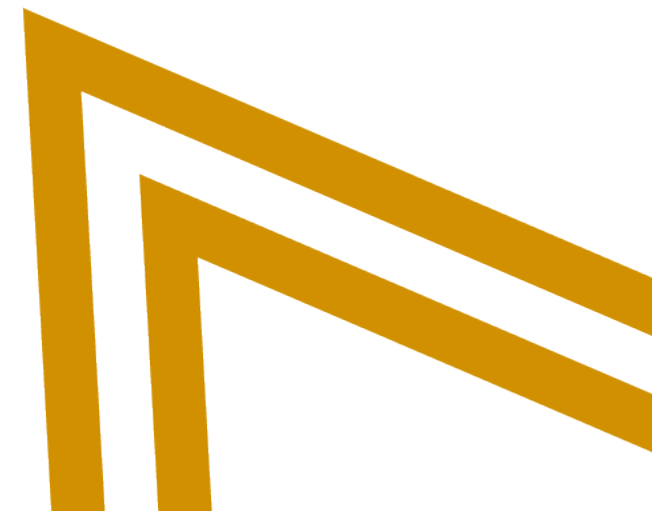
A focus on growth of all students.

Outcomes for students have continued to be strong in numeracy and we can see that the students transitioning to Mooroolbark College have continued their love of mathematics.

The chance to expand the learning walks process to see another school environment.

Exploring reflection journals for 2025.

The partnership between our schools has strengthened and has seen some additional 'bonus' connections like our Brass Band.



Outcomes for Rolling Hills Primary School - Year 3

NAPLAN - Students by Proficiency Levels 📄

Exceeding or Strong students in 2023 (%) 📄

For students in Year 3, Numeracy

85%

Your school

70%

Similar

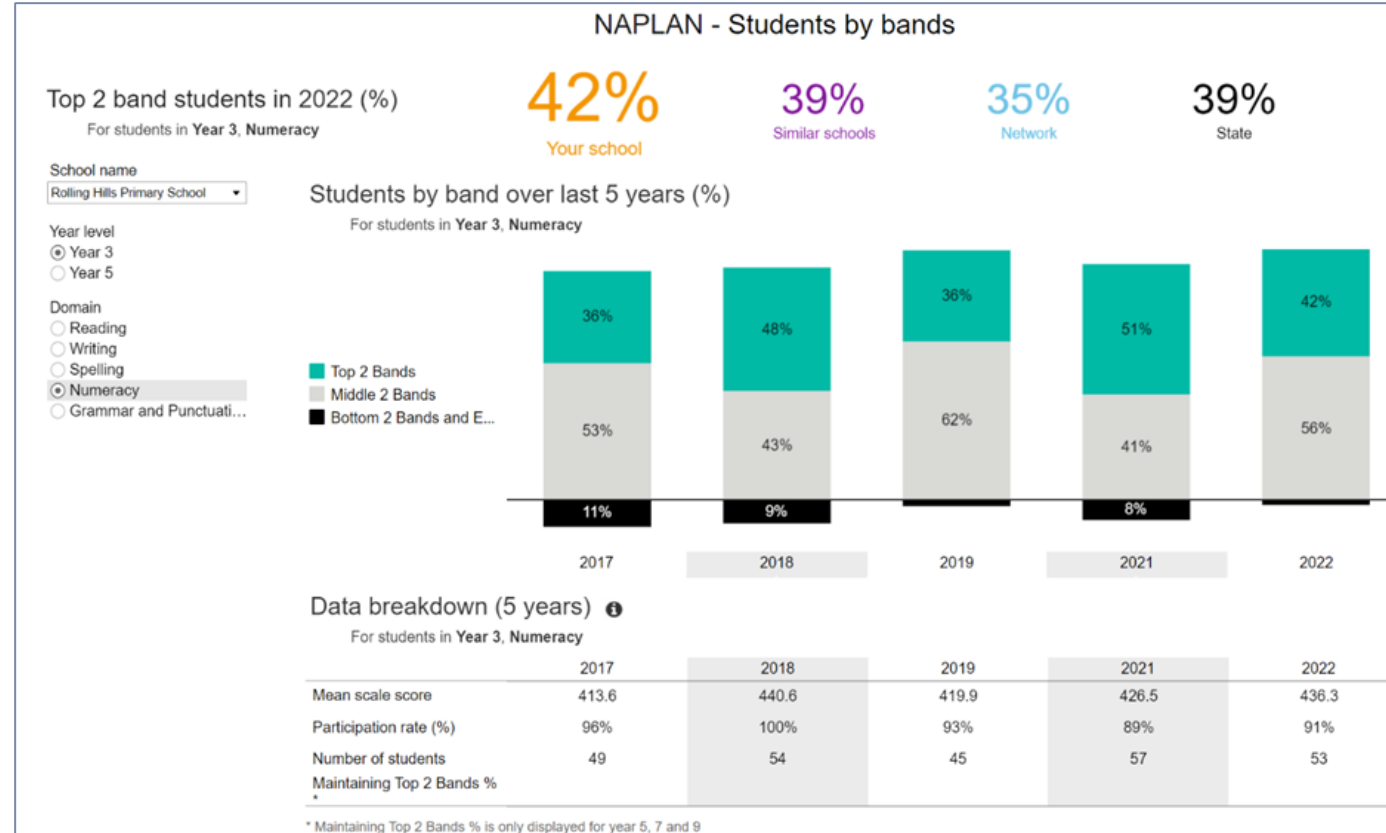
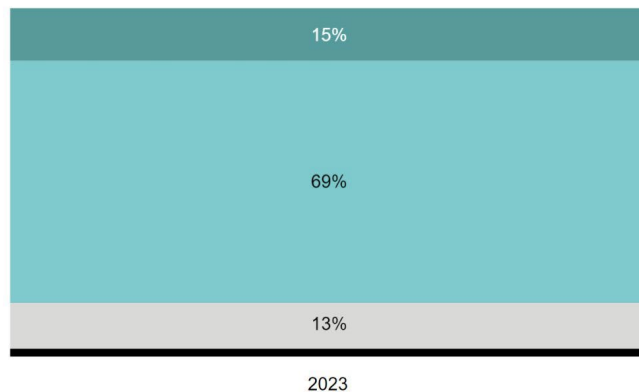
66%

Network

Students by proficiency level (%) 📄

For students in Year 3, Numeracy

- Exceeding
- Strong
- Developing
- Needs additional support
- Exempt



Outcomes for Rolling Hills Primary School - Year 5

NAPLAN - Students by Proficiency Levels ⓘ

Exceeding or Strong students in 2023 (%) ⓘ

For students in Year 5, Numeracy

88%

Your school

71%

Similar

68%

Network

Students by proficiency level (%) ⓘ

For students in Year 5, Numeracy



- Exceeding
- Strong
- Developing
- Needs additional support
- Exempt

NAPLAN - Students by bands

Top 2 band students in 2022 (%)

For students in Year 5, Numeracy

35%

Your school

23%

Similar schools

22%

Network

27%

State

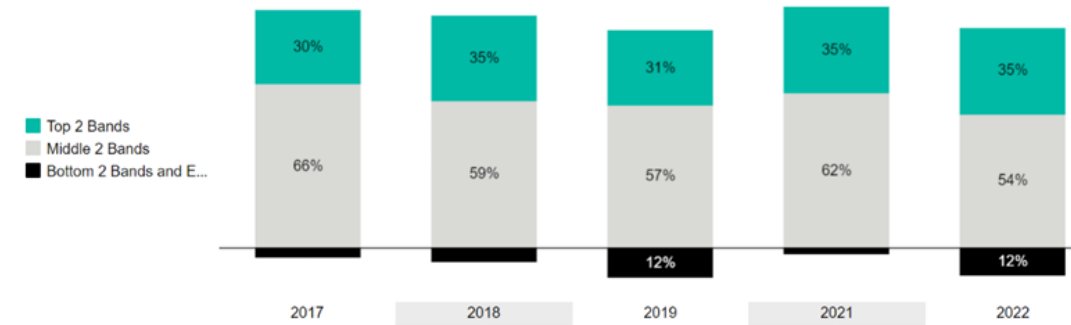
School name
Rolling Hills Primary School

Year level
 Year 3
 Year 5

Domain
 Reading
 Writing
 Spelling
 Numeracy
 Grammar and Punctuati...

Students by band over last 5 years (%) ⓘ

For students in Year 5, Numeracy



Data breakdown (5 years) ⓘ

For students in Year 5, Numeracy

	2017	2018	2019	2021	2022
Mean scale score	504.0	506.6	503.2	506.5	504.1
Participation rate (%)	96%	94%	98%	84%	95%
Number of students	49	52	50	44	55
Maintaining Top 2 Bands %	50%	88%	65%	67%	

* Maintaining Top 2 Bands % is only displayed for year 5, 7 and 9

Our learnings – nothing new!

Sustainability is hard

- Staff changes.
- Competing priorities.



Finding Time

- Time away from classes is hard to accommodate because teachers do not want to leave their classes as the learning stops.



Keep it simple

- Keep it small, keep it achievable.



Questions



Thank you