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THE MATHEMATICAL ASSOCIATION OF VICTORIA

Masterclass: Supporting leaders in their first years of leading

Ellen Corovic

The Mathematical Association of Victoria

Aimee Fleming

St Albans North Primary School

Thursday 5 December

MAV Conference 2019

Overview

- Know yourself and role as a leader
- Ideas of where to start
- Tools for building success

Warm up

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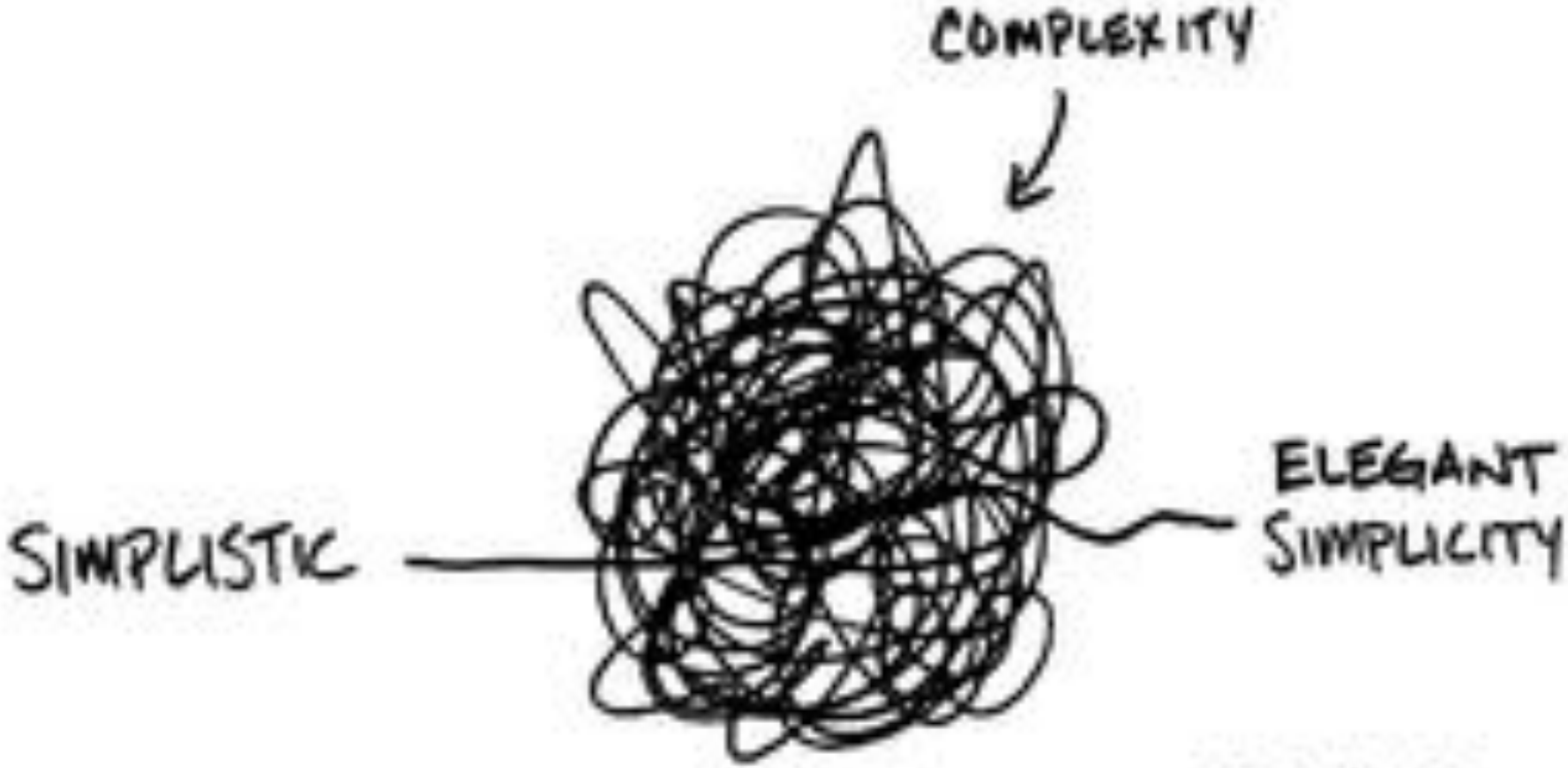
The Product Game

1	2	3	4	5	6
7	8	9	10	12	14
15	16	18	20	21	24
25	27	28	30	32	35
36	40	42	45	48	49
54	56	63	64	72	81

Factors:

1	2	3	4	5	6	7	8	9


i give
a gonski
igiveagonski.com.au
Education
Council
DECEMBER 2015


COMPLEXITY
SIMPLISTIC
ELEGANT
SIMPLICITY
© Behaviour Gap

Knowing your role

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Knowing your role

What is your role?	How do you hope to have an impact?	What are your strengths?
What is the leadership structure at your school? Who can you go to for help or advice?	How much time do you have for each part of your role?	What are the gaps?

Where to start
Deliberate practice

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Deans for Impact

Types of practice

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- Instructional model
- Pedagogy
- Content knowledge
- Designing learning experiences
- Planning
- Coaching
- Learning walks / Peer observation

Instructional model

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- A lesson structure maps teaching and learning that occurs in class. Sound lesson structures reinforce routines, scaffold learning via specific steps/activities.
- They optimise time on task and classroom climate by using smooth transitions.
- Planned sequencing of teaching and learning activities stimulates and maintains engagement by linking lesson and unit learning.

- It should be underpinned by a cohesive pedagogical approach

(Hattie HITS)

Instructional model @ SANPS

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Warm up

SANPS Instructional Model Maths

At St Albans North Primary School a grea
based on an hour session beginning wit
minutes).

Warm up

A warm up is short sharp activity design
lesson. It may link to the focus of the day
understandings.

During this time we will see:

Students

- Actively participating
- Enjoying themselves
- Activating their brains
- Activating prior maths kno

Teachers

- Displaying enthusiasm and
- Sometimes participating in
- Building students' confider
- Supporting deeper thinkin
- Using a range of strategies

Student language

I will turn my brain on by enthusiastically

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What will we see in a Maths Lesson

Warm up

Launch

Explore

Summary

upment

ion of the
troduction of
arning. It is
helps them
n-of anchor
here the
e task is

Pedagogy

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- Pedagogy is an encompassing term concerned with what a teacher does to influence learning in others.

- The pedagogy adopted by teachers shapes their actions, judgments, and other teaching strategies by taking into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students.

What is good maths pedagogy

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For students to become powerful mathematical thinkers, it is desirable that their teachers possess beliefs that support the development of problem-centered, learner oriented classroom environments. (Cross)

Adopting new pedagogy @ SANPS

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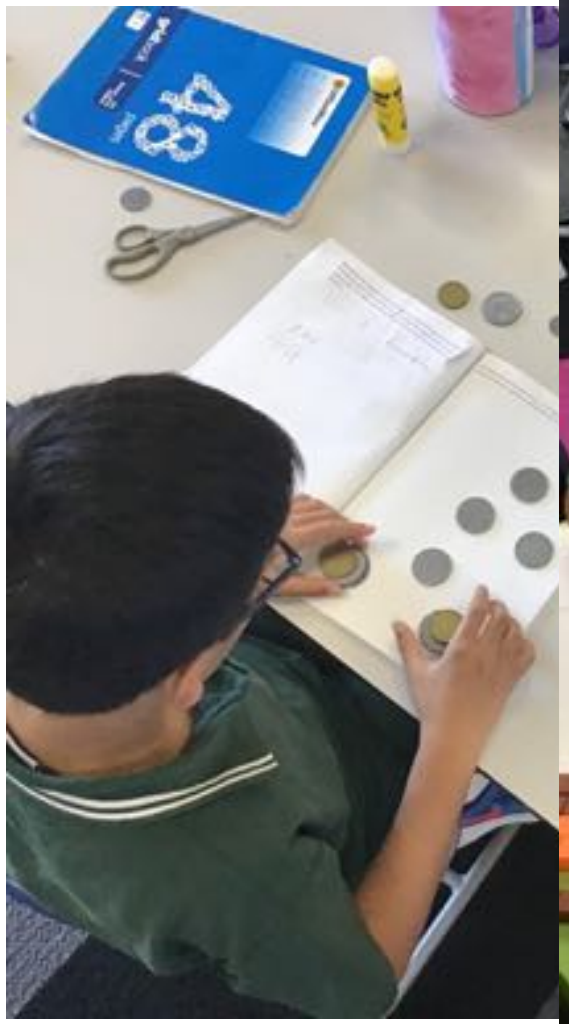

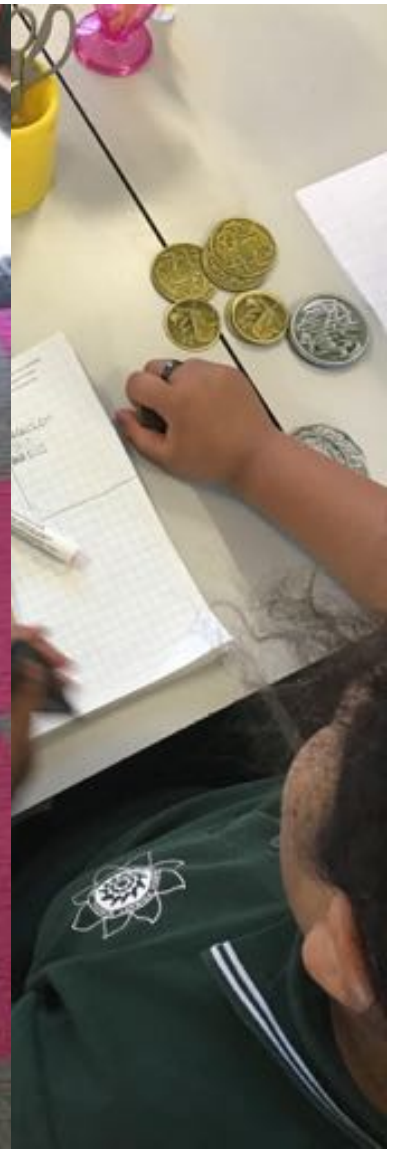

Content knowledge

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Maths content knowledge required

- curriculum
- developmental learning sequences
- research of how students learn

Designing learning experiences

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Rich tasks

- invites students to make decisions
- allows for a range of responses

Problem solving

- students do not know the solution
- Students apply their knowledge in new ways

Challenging task

- students complete prior to instruction
- develops students connections and reasoning

What is the purpose of the task?

Worked example

- a teacher demonstration of task

Explicit teach

- directing students learning towards a goal or path

Challenging task example

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Brax and the Chocolate Factory

At the chocolate factory, you can choose from 3 different types of chocolate:



*white

And then add 1 of the following flavours:


*strawberry *cola

What type of chocolate would you make?

What other types can you also design?

Brax and the Chocolate Factory

At the end of the tour, each child was able to design their own chocolate bar.

They could choose from 3 different types of chocolate:

*white *milk *dark.

They then added in 1 of the following flavours:

*strawberry *cola *Vegemite *wasabi.

How many different types of chocolate bars ca

More chocolate

The owners of the chocolate factory have decided to make things more fun.

You still need to pick just 1 type of chocolate but you can now include either 1 OR 2 different types of flavour/s.

How many different types of chocolate bars can be made now?

Coaching

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- Great coaches work with teachers to improve practice and enhance student outcomes. However, learning to coach is a skill of its own. By building your coaching skills, you'll be able to provide valuable assistance to your colleagues, as well as reflect and improve on your own practice.

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Coaching @ SANPS

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Lesson Observation

Warm up

Date

Teacher:

Lesson foc

Launch

What strategies were used to engage the students at the launch?

Explore

How were students actively exploring? How were individuals learning needs catered?

Summary

How did the summary reflect the learning intention? What strategies were used.

NUMERACY CONSULTING *Weekly Schedule* – Michael & Ellen

WEEKS 1 - 3

Week 1 Monday July 15th	Michael Observing	Week 2 Monday July 22nd	Michael Modelling	Week 2 Thursday July 25th	Michael Observing	Week 3 Monday July 29th	Michael Modelling
9-10	Aimee & Michael	9-10	Charlotte	9-10	April	9-10	*Fiona
10-11	Charlotte	10-11	April	10-11	Fiona	10-11	Charlotte
RECESS				RECESS			
11.30-12.30	April	11.30-12.30	*Fiona	11.30-12.30	Charlotte	11.30-12.30	April
12.30 – 1.30	Fiona	Feedback Sessions		Feedback Sessions		Feedback Sessions	
LUNCH		Covered by Kirsten (Aimee to attend)		Covered by Kirsten (Aimee to attend)		Covered by Kirsten (Aimee to attend)	
Feedback Sessions		12.30-1.00	April	12.30-1.00	Fiona	12.30-1.00	Charlotte
Covered by Kirsten (Aimee to attend)		1.00-1.30	Fiona	1.00-1.30	Charlotte	1.00-1.30	April
2.00 – 2.30	Charlotte	1.30-2.00	Charlotte	1.30-2.00	April	1.30-2.00	Fiona
2.30 – 3.00	April	LUNCH		LUNCH		LUNCH	
3.00 – 3.30	Fiona	2.30-3.30	Aimee & Michael	2.30-3.30	Aimee & Michael	2.30-3.30	Aimee & Michael

WEEKS 5 - 8

Week 4 Monday August 5th	Michael Observing	Week 5 Monday August 12th	Michael Modelling		Week 7 Monday August 26th	Michael Observing	Week 8 Monday September 2nd	Michael Modelling
9-10	TBA	9-10	TBA	Week 6 – Michael Absent	9-10	Sharon	9-10	Sharon
10-11	Ian	10-11	Ian		10-11	Ian	10-11	Ian
RECESS					RECESS			
11.30-12.30	Sally	11.30-12.30	Sally		11.30-12.30	Sally	11.30-12.30	Sally
Feedback Sessions		Feedback Sessions			Feedback Sessions		Feedback Sessions	
Covered by Kirsten (Aimee to attend)		Covered by Kirsten (Aimee to attend)			Covered by Kirsten (Aimee to attend)		Covered by Kirsten (Aimee to attend)	
12.30-1.00	Ian	12.30-1.00			12.30-1.00	Sally	12.30-1.00	Sharon
1.00-1.30	Sally	1.00-1.30	Ian		1.00-1.30	Ian	1.00-1.30	Sally
1.30-2.00		1.30-2.00	Sally		1.30-2.00	Sharon	1.30-2.00	Ian
LUNCH		LUNCH			LUNCH		LUNCH	
2.30-3.30	Aimee & Michael	2.30-3.30	Aimee & Michael		2.30-3.30	Aimee & Michael	2.30-3.30	Aimee &Michael

WEEKS 9 – 10

Week 9 Monday September 9th	Michael Observing	Week 10 Monday September 16th	Michael Modelling
9-10	Jo	9-10	Dan
10-11	Dan	10-11	Jo
RECESS			
11.30-12.30	Sally	11.30-12.30	Sally
Feedback Sessions		Feedback Sessions	
Covered by Kirsten (Aimee to attend)		Covered by Kirsten (Aimee to attend)	
12.30-1.00	Jo	12.30-1.00	Sally
1.00-1.30	Sally	1.00-1.30	Dan
1.30-2.00	Dan	1.30-2.00	Jo
LUNCH		LUNCH	
2.30-3.30	Aimee & Michael	2.30-3.30	Aimee & Michael

Notes

Extra Michael observation opportunities
Week 2 Monday July 22nd at 11.30 - 12.30
Week 3 Monday July 29th at 9.00 – 10.00

Week 2 - Wednesday and Thursday sessions 3 & 4 need to swap.

ACY/NUMERACY

ing & Consulting

, 2019

	Literacy	Numeracy	
	Consulting	Coaching	Consulting
abeth	1/2 Team	3/4/5 Team	F/1 Team
abeth	1/2 Team	3/4/5 Team	F/1 Team x2
abeth	1/2 Team	3/4/5 Team	F/1 Team
abeth	N/A	3/4/5 Team	5/6 Team
nna	1/2 Team	F/1 Team	5/6 Team
nna	3/4/5 Team	F/1 Team	N/A
nna	3/4/5 Team	F/1 Team	5/6 Team
nna	3/4/5 Team	F/1 Team	5/6 Team
m	3/4/5 Team	5/6 Team	1/2 Team
m	Planning	5/6 Team	1/2 Team

Top coaching tips

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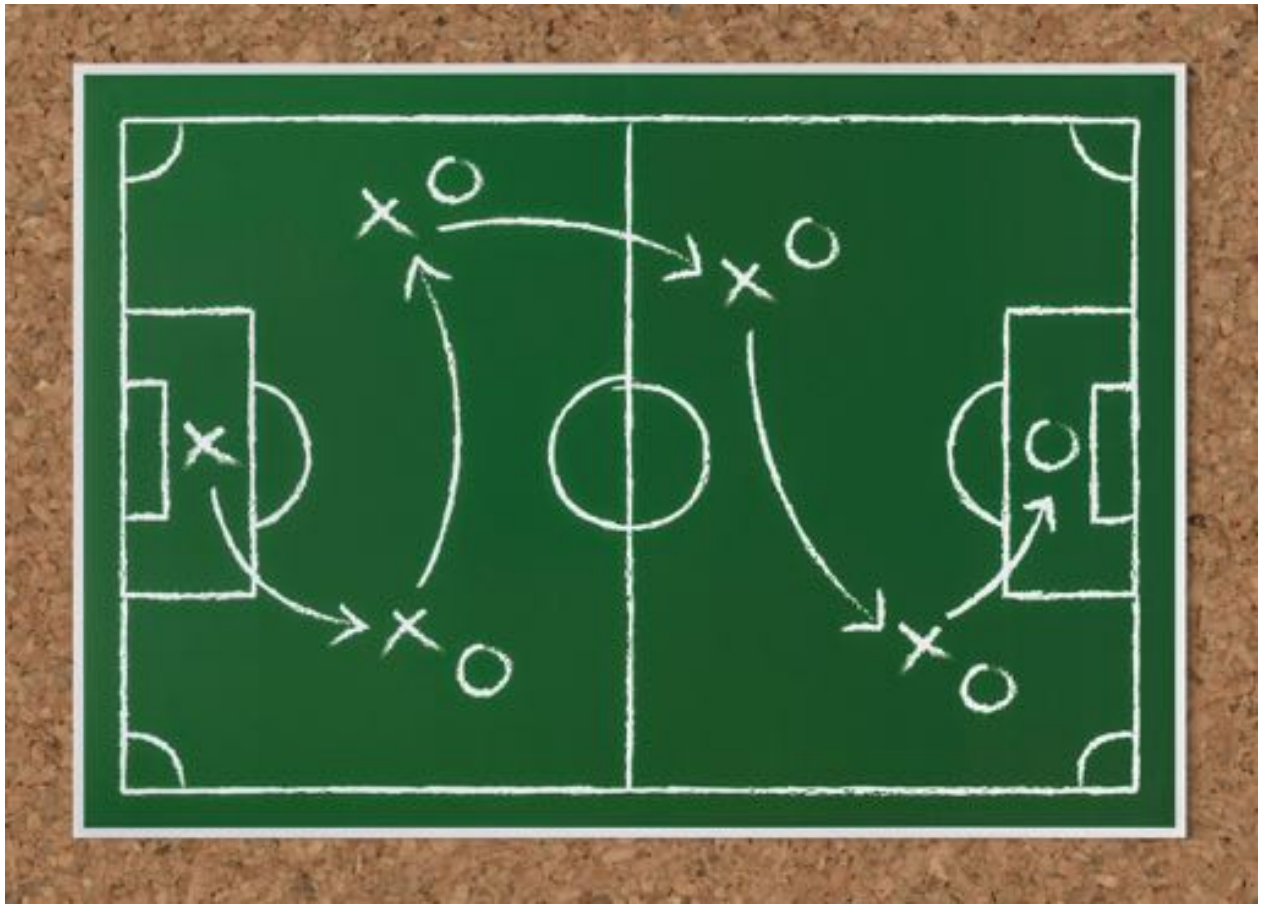
1. Plan for coaching
2. Debrief is critical for success
3. Celebrate



Learning Walks / Peer observations

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- Explore
- ATSIL

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Planning

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- Consistency
- Documentation
- Resources
- Whole school, yearly, termly and weekly

Resources - books

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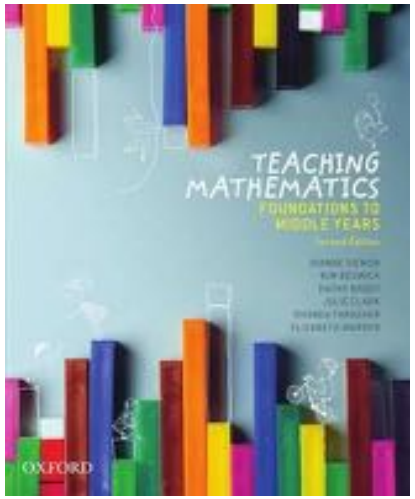

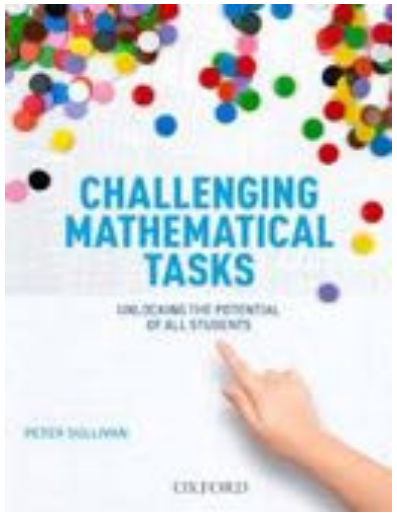

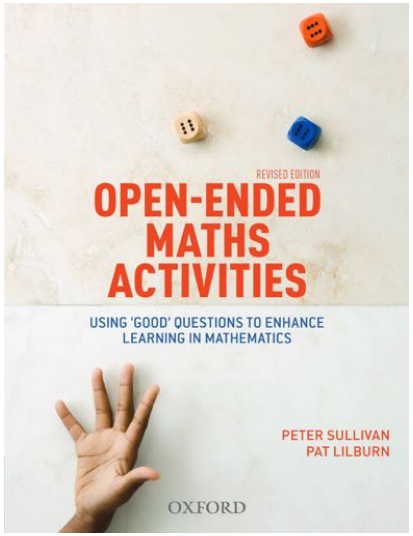

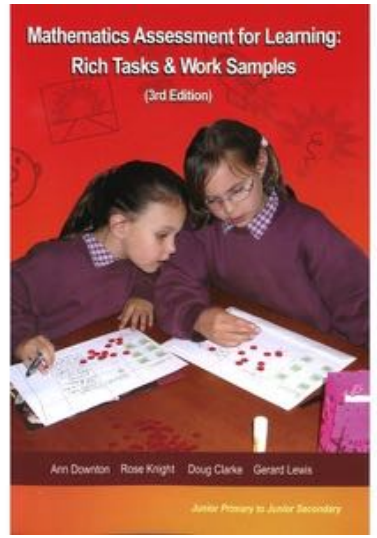

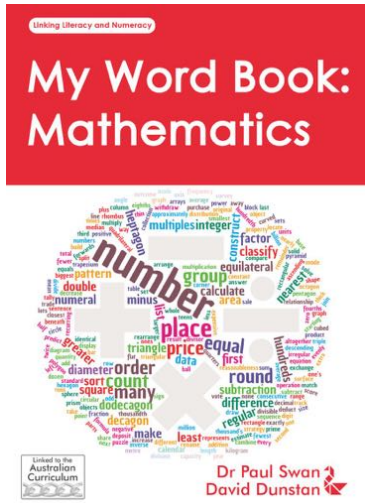

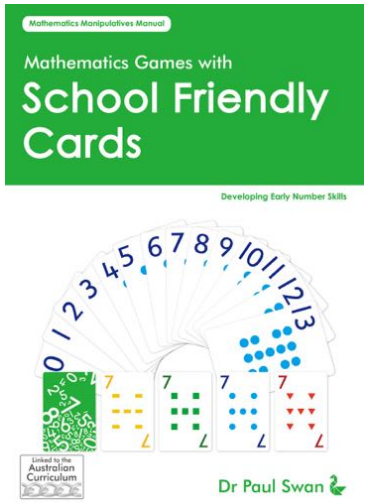

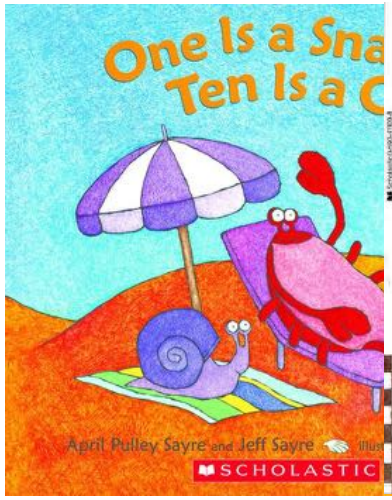

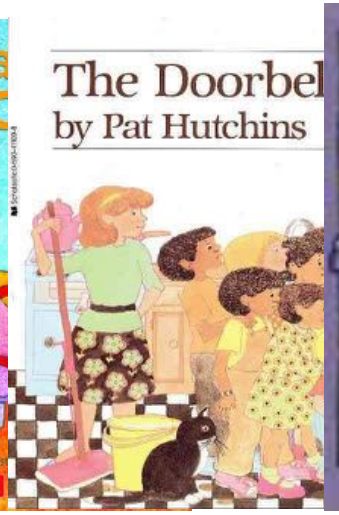

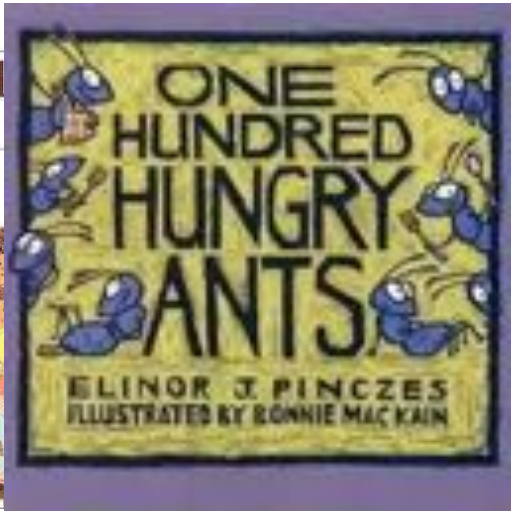

Resources - web

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ReSolve **https://www.resolve.edu.au/**

Dr Paul Swan https://drpaulswan.com.au/

Numeracy Portal (Curriculum companion)

https://www.education.vic.gov.au/school/teachers/teachingresources/discipline/maths/Pages/numeracyportal.aspx

Maths 300 https://maths300.com/

NZ Maths https://nzmaths.co.nz/

MAV

https://www.mav.vic.edu.au/Resources/Primary-resources/Curriculum-and-resources

Resources @ SANPS

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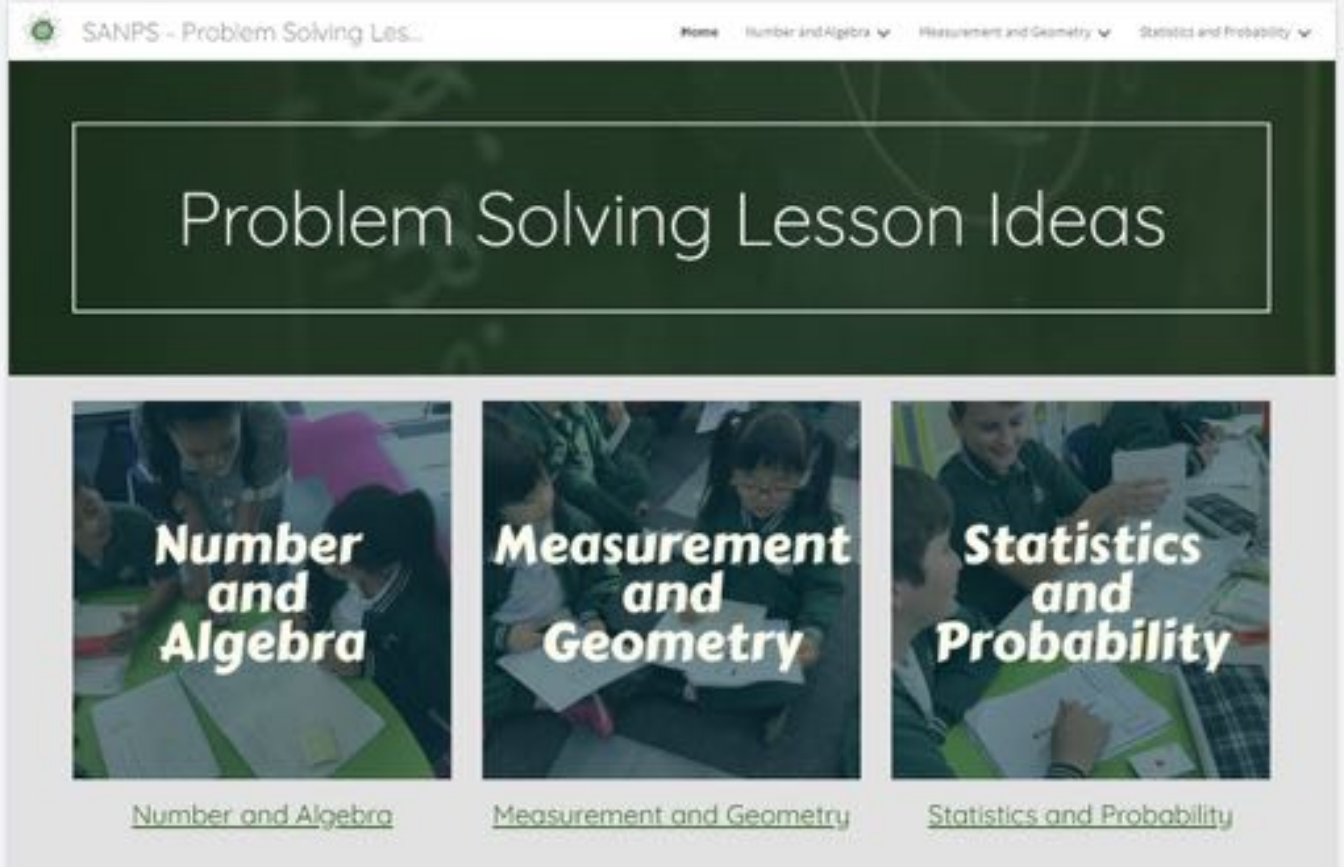

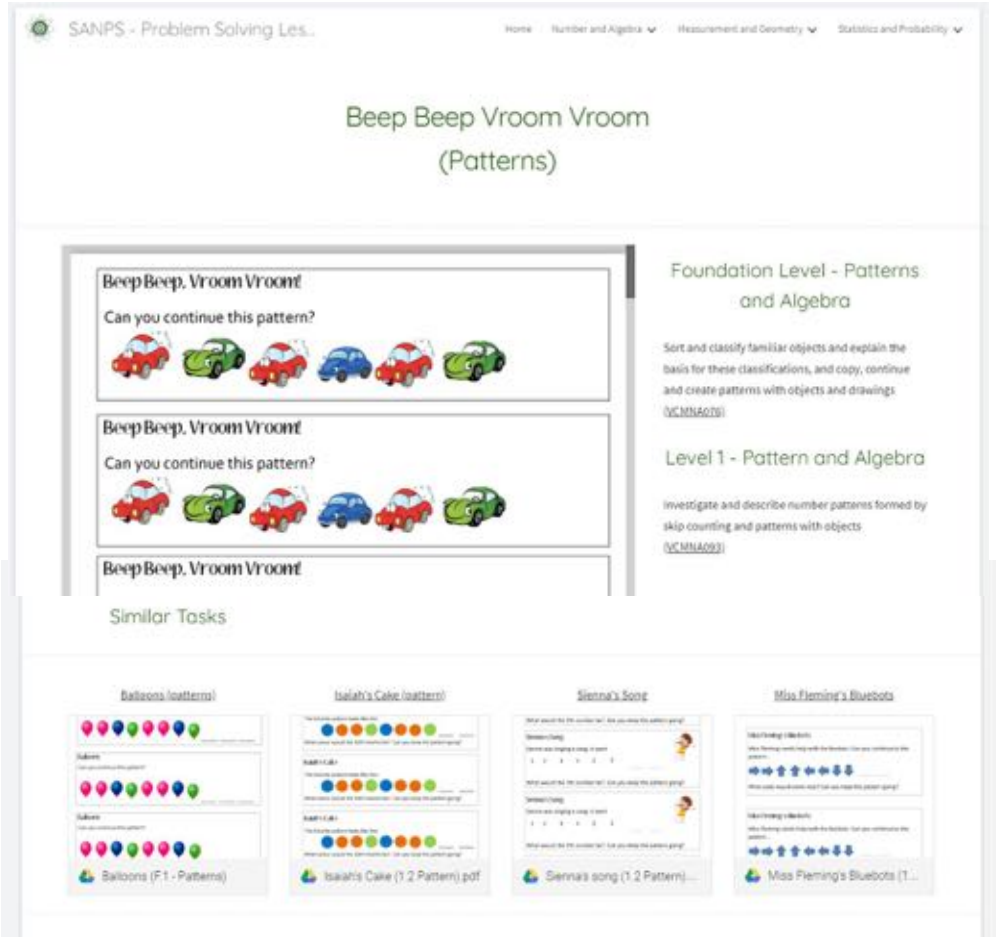

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Yearly overview

MATHEMATICS	NUMBER AND ALGEBRA	Place Value (VCMNA152) Odd and Even Numbers (VCMNA153) Simple Fractions and Decimals (VCMNA157) Number Patterns (VCMNA163) Problem Solving (written equations) (VCMNA153) (VCMNA162)	Addition and Subtraction (VCMNA132) (VCMNA133) (Level 3 concepts revisited) Level 4 (VCMNA154) Addition and Subtraction (VCMNA163) Money (VCMNA150) Problem Solving (written equations) (VCMNA139) (Level 3 revision / practice) Level 4 (VCMNA154)	Multiplication / Division (VCMNA155) (VCMNA156) Fractions and Decimals (VCMNA158) (VCMNA159) Number Sentences (VCMNA162) (VCMNA163) Patterns and Algebra (VCMNA164)	Fractions, Multiples to a whole number (VCMNA158) Whole numbers and place value to 10 000 (VCMNA152) (VCMNA153) Multiplication (VCMNA154) (VCMNA155) Money (VCMNA150)
	MEASUREMENT & GEOMETRY	3D objects (VCMMG171) Regular and Irregular shapes (VCMMG165) Length (VCMNG165)	Shape and Symmetry (VCMMG170) Geometric Reasoning Angles (VCMMG174) Time (VCMNG167) (VCMNG168)	Location and Transformation (VCMMG173) Mapping (VCMMG172) Area and Volume volume (VCMNG166)	Compare lengths, masses, capacities and temperatures(VCMMG165) Space, Maps, Scales and Networks Time and Temperature (VCMMG167) (VCMMG168)
	STATISTICS AND PROBABILITY	Data Representation and Interpretation (VCMSP175) (VCMSP179) (VCMSP180)	Chance and Probability (VCMSP176) (VCMSP176) (VCMSP177)	Data Representation and Interpretation (VCMSP175) (VCMSP179) (VCMSP180)	Chance and Probability (VCMSP176) (VCMSP176) (VCMSP177)
	ONGOING	Number / Place Value / Problem Solving			

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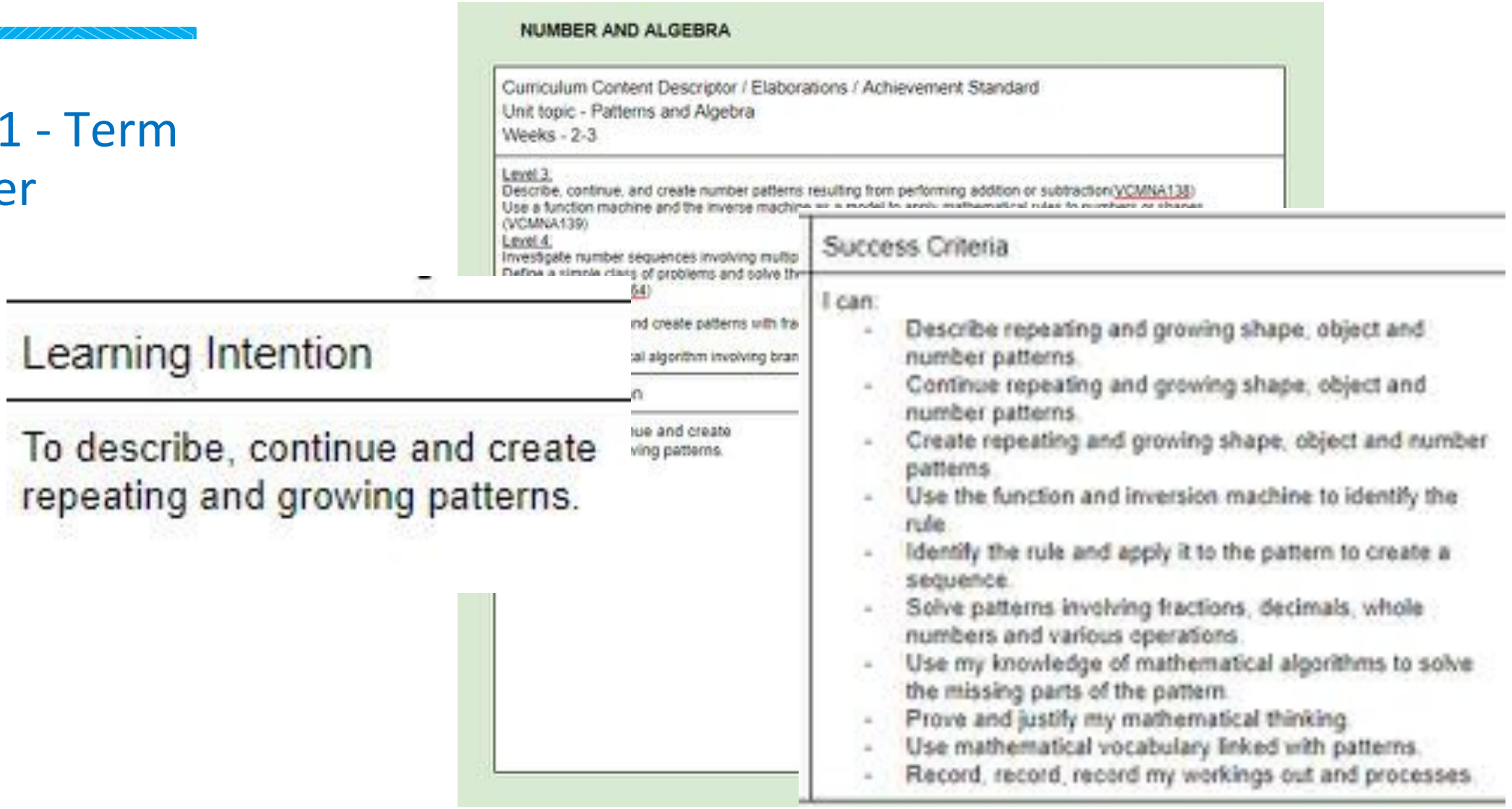
Term 1 - Term Planner



NUMBER AND ALGEBRA

Curriculum Content Descriptor / Elaborations / Achievement Standard
Unit topic - Patterns and Algebra
Weeks - 2-3

Level 3:
Describe, continue, and create number patterns resulting from performing addition or subtraction(VCMNA138)
Use a function machine and the inverse machine as a model to apply mathematical rules to numbers or shapes (VCMNA139)
Level 4:
Investigate number sequences involving multip
Define a simple class of problems and solve th
64)

nd create patterns with fra
al algorithm involving bran
n
ue and create
ving patterns.

Learning Intention

To describe, continue and create repeating and growing patterns.

Success Criteria

I can:

- Describe repeating and growing shape, object and number patterns.
- Continue repeating and growing shape, object and number patterns.
- Create repeating and growing shape, object and number patterns.
- Use the function and inversion machine to identify the rule.
- Identify the rule and apply it to the pattern to create a sequence.
- Solve patterns involving fractions, decimals, whole numbers and various operations.
- Use my knowledge of mathematical algorithms to solve the missing parts of the pattern.
- Prove and justify my mathematical thinking.
- Use mathematical vocabulary linked with patterns.
- Record, record, record my workings out and processes.

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ST ALBANS NORTH PRIMARY SCHOOL

Term Planner: Mini Units

LEARNING AREA: *MATHS*

Term: 4 (2019) | **Year Level:** 3/4/5

Strand: Statistics & Probability | **Sub-strand: Data Representation**

Achievement standard (expected in bold)

	Level 2:	Level 3:	Level 4:	Level 5:	Level 6:
5 Lessons	Students collect data from relevant questions to create lists, tables and picture graphs with and without the use of digital technology. They interpret data in context. Students use everyday language to describe outcomes of familiar events.	**Students carry out simple data investigations for categorical variables. They interpret and compare data displays.** Students conduct chance experiments, list possible outcomes and recognise variations in results.	Students describe different methods for data collection and representation, and evaluate their effectiveness. **They construct data displays from given or collected data, with and without the use of digital technology.** Students list the probabilities of everyday events. They identify dependent and independent events.	**Students pose questions to gather data and construct various displays appropriate for the data, with and without the use of digital technology. They compare and interpret different data sets.** Students list outcomes of chance experiments with equally likely outcomes and assign probabilities as a number from 0 to 1.	Students interpret and compare a variety of data displays, including displays for two categorical variables. They analyse and evaluate data from secondary sources. Students compare observed and expected frequencies of events, including those where outcomes of trials are generated with the use of digital technology. They specify, list and communicate probabilities of events using simple ratios, fractions, decimals and percentages.

Unit Goal	Key Understandings/Proficiencies
Grade 3 - Students carry out simple data investigations for categorical variables. They interpret and compare data displays. Grade 4 - They construct data displays from given or collected data, with and without the use of digital technology. Grade 5 - Students pose questions to gather data and construct various displays appropriate for the data, with and without the use of digital technology. They compare and interpret different data sets.	• Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording • Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies. • Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values. • Evaluate the effectiveness of different displays in illustrating data features including variability. • Pose questions and collect categorical or numerical data by observation or survey. Vocab: data, interpret, collect, survey categorical, numerical, graphs, effectiveness, tally, transfer, values, features, displays, evaluate, variability, pose, questions.
Lesson Ideas	**Cross Curricula Connection (Inquiry/STEM)**
• Compare the effectiveness of different methods of collecting data • Choose the most effective way to collect data for a given investigation • Explore ways of presenting data and showing the results of investigations • Investigate data displays • pose questions to gather particular data • collect, represent and compare data sets • Problem solving - TBA	• Real life experiences - collecting data • Inquiry - collecting data of environmental factors • Writing - explanation of data and findings
Assessment	**Resources**
Formative • Anecdotal records • Student work samples • Teacher observations and checklists • Informal - thumbs up etc Summative • Post test	• Booker • Open ended maths problems book • Challenging maths task book • maths resources • Collected data

Planning @ SANPS

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MATHS PLANNER
Focus: Measurement and Geometry
Area: Time - convert / am & pm / tell time

Lesson Number: 0	Lesson Number: 1	Lesson Number: 2	Lesson Number: 3	Lesson Number: 4	Lesson Number: 5
Focus: Problem solving lesson	Focus: Tell time to the half and quarter hour. Match to a digital	Focus: Tell time to the 5 minute and minute mark. Match to a digital	Focus: am / pm notation. Worded problems	Focus: am / pm notation. Worded problems	Focus: converting between units of time
Learning Intention: To select and use problem solving strategies to solve a problem. **Success Criteria:** • I can select an effective strategy • I can apply the strategy to the problem and assess the effectiveness. • I can do trial and error. • I can solve the problem and articulate/explain my thinking • I can give feedback to other	**Learning Intention:** To tell time to the half hour and quarter hour. **Success Criteria:** • I can match the time on an analogue clock to that on a digital clock. • I can read the time on an analogue and digital clock using the language of "to" and "from" for quarter hours. • I am confident with converting between analogue, digital and verbal time.	**Learning Intentio**… Tell time to the 5 m… and minute mark **Success Criteria:** • I can unde… how to tell the minute analogue… digital cloc… • I can unde… how to tell the 5 minu… on a digita… analogue… • I can use t… and small… • I can use t… numbers a… to the 5s c… patterns			
Warm Up: Numbers and letters game	**Warm Up:** Boom	**Warm Up:** Make the time - … Skip counting by 5…			

Vocab - quarter hour, past and to, analogue, hands, digital **Launch:** Modelling: • Ask Children to set up for learning • Introduce the problem. - make it realistic - want them to buy in • Discuss the strategies that may be used to create the problem. - refer to anchor chart **Explore:** Problem 73 pg 12 - open ended maths tasks Students are to: • Attempt the problem independently for 5 minutes • Analyse the problem • Interpret it • Select an effective strategy • Trial and error Problem - *'Some builders started work exactly on the ½ hour mark and worked for 6 ½ hours before stopping. What time might they have started and what time might they have stopped?'*	**Launch:** Modelling: • https://www.youtube.com/watch?v=0eAyv7ckWQ • Watch video as a class. Each student should have an analogue practice clock to manipulate. Pause and ask students to mirror the time on their clocks described in the video. **Explore:** Students are to: • Go on iPads and access the analogue time learning program "hickory, dickory clock". https://www.ictgames.com/mobilePage/… • They a… through… questio… 1 throu…	**Launch:** Modelling: • Model with an actual clock how to tell the time going up from 5 past the hour eg: 5 past, ten past, 15 past-make the connection to skip counting • Focus on the minute markers on the clock- explicitly show this • Place a few analogue times on the board for students to name and convert to analogue and vice versa **Explore:** Students are to: • Use the time…	**Launch:** Modelling: • What is the timetable? Where do we see them? • Show one on the TV - what information does it give us? • Explain how it works and how to create one • Model as a grade the timetable of a day at school - include to the quarter hour **Explore:** Students are to: • Select an app to draw up a timetable • Create a timetable to show the different events they will be doing	**Launch:** Modelling: • How to access iPad calendar. How to add events etc. • Introduce the question about the holiday. **Explore:** Students are to: • Use their calendar on the iPads Part 1 - Travel agent booked out holiday in January. We are going for 16 days. On what day might we leave and return? Give 5 possible outcomes. Extension: the flight was a redeye (overnight) does this change things?	**Launch:** Modelling: • Gain PK around - converting • Explicitly discuss what time conversion means- show students 60secs is 1 min, 60 mins is 1 hr etc. • Model with a few problems on the board and explicitly show how to work these out • If i had 4 minutes how many seconds do I have? etc. **Explore:** Students are to: • Work in groups • Be given worded problems that…

Enabling prompts: Started on the hour and went for 6.5 hours **Extending prompts:** Breaking time into decimals - starting from a specific minute. Start at 7:12 and worked for 887 minutes **Summary:** Select 2 students to share their strategies and explain their thinking.	**Enabling prompts:** Students select an appropriate level to begin with on ICT program **Extending prompts:** Students select an appropriate level on ICT program **Summary:** Students share something new that they learnt about time.	with a peer for them to convert **Enabling prompts:** Telling time to the hour and half hour **Extending prompts:** 24 hour time **Summary:** Class share -share some time conversions on the board	**Enabling prompts:** Build timetable to the hour **Extending prompts:** convert pm time to 24 hour times. **Summary:** Students share their timetables. Upload to seesaw		**Enabling prompts:** work in similar abled groups- simple problems **Extending prompts:** More complex problems eg-if i went to the shopping centre for three hours how many things could I fit in? -convert this Converting 12-24 hr hour time systems **Summary:** Airplay and explain their thinking

Planning @ SANPS

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MATHS PLANNER
Focus: Measurement and Geometry
Area: Time - convert / am & pm / tell time

Lesson Number: 0	Lesson Number: 1	Lesson Number: 2	Lesson Number: 3	Lesson Number: 4	Lesson Number: 5
Focus: Problem solving lesson	Focus: Tell time to the half and quarter hour Match to a digital	Focus: Tell time to the 5 minute and minute mark Match to a digital	Focus: am / pm notation Worded problems Am and Pm on an analogue and digital clock	Focus: am / pm notation Worded problems calendar work - dates	Focus: converting between units of time • secs - minutes • minutes - hours • hours - days • days - week - year - decade - century
Learning Intention: To select and use problem solving strategies to solve a problem. Success Criteria: • I can select an effective strategy • I can apply the strategy to the problem and assess the effectiveness • I can do trial and error • I can solve the	Learning Intention: To tell time to the half hour and quarter hour Success Criteria: • I can match the time on an analogue clock to that on a digital clock • I can read the time on an analogue and digital clock using the language of "to" and "from" for	Learning Intention: Tell time to the 5 minute and minute mark Success Criteria: • I can understand how to tell time to the minute on an analogue and digital clock • I can understand how to tell time to the 5 minute mark on a digital and analogue clock • I can use the big	Learning Intention: To use am and pm notations to solve simple time problems. Success Criteria: • I can identify am and pm and what they mean in time • I can calculate the time travelled between 2 places • I can plan out my weekend by creating a timetable	Learning Intention: To solve simple time problems Success Criteria: • I can identify the features of a calendar • I can show my knowledge of a calendar • I can access digital calendar to add events • I can add events in the correct	Learning Intention: To convert between units of time Success Criteria: • I can understand what converting means • I can convert between units of time • I can use problem solving to work out the conversion of time • I can calculate the

Planning @ SANPS

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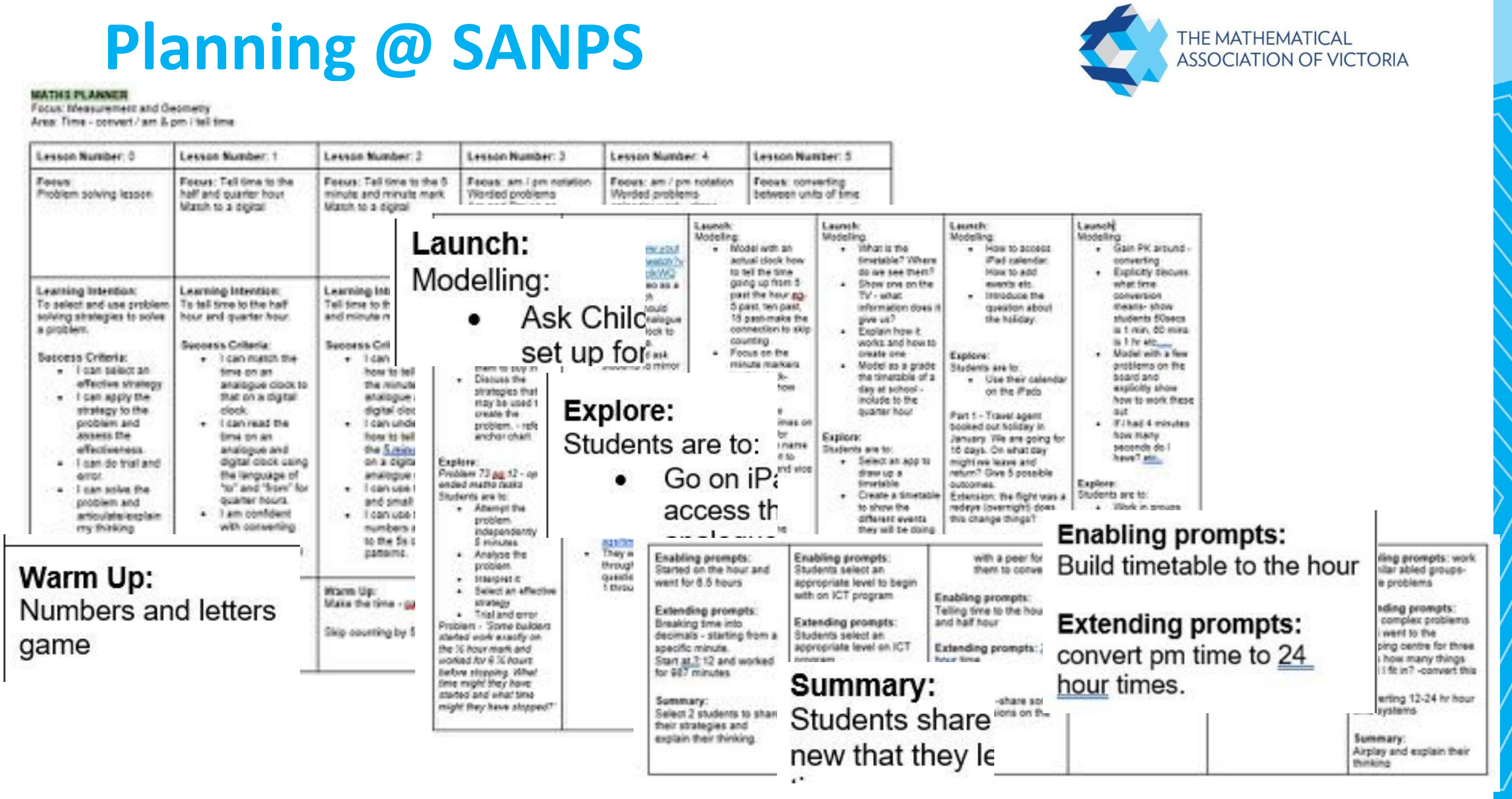

Getting the whole school on board

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Teachers' say

Maths around the school

Teachers' say

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Getting feedback to get everyone on board

Teacher feedback @ SANPS

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More of in Consulting	Changes in consulting	Professional development	Changes in maths coaching
• More Problem solving • Other sessions outside of problem solving • Wide variety of strategies, new ideas more resources • Modelling • Feedback and ideas of how to do something better • Question techniques	• Feedback to be two ways • Ownership over focuses • See skill development • Know the coaching cycle • More modelling • Feedback length Numeracy structure	• Anecdotal records • Diagnostic testing and prompts • Sequential skill development • Logical thinking, mental calculation and [illegible] • Problem solvi[illegible] other than nu[illegible] • Well below st[illegible] the same topi[illegible] • Methods/strat[illegible] multiplication • Using materia[illegible] • Problem solvi[illegible] • Instructional [illegible] • Questioning	• Assessment /intervention students • Open ended questions • More modelling • [illegible]

Here are some of the changes that have been/going to be made:

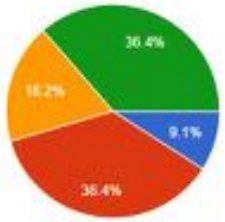
- You received a term overview of consulting and coaching timetables for the term
- There is designated coaching weeks
- There will be coaching with me to follow consulting cycle with Michael
- We have opened up more opportunities for observations when Michael is modelling
- We have changed the debrief sessions to have both Michael and myself contributing
- Made changes to the timing of debrief sessions, to be 10 mins of lesson reflections and 10 mins of a planning goal for next time. They will still be timetabled for 30 mins, as this allows for change over

debrief with teachers around their goal and future goals
oal and direction of professional learning within their lessons

ng one of the teachers within the consulting cycle. I receive my own feedback

sses from me based on cycle as per the overview
with me, at a time that suits the teacher
times for coaching
ons in the instructional model

ey that can't always be met. As per our discussion, if there is something you
and have a chat, or if you would like clarification around any of the above



What would you like more of regarding the Numeracy consulting (Michael/Ellen)?

11 responses

Sequential skill development.
A number of lessons that build on the previous lesson.
Guidance on how to choose lessons to develop specific skills.
Explicit teaching of concepts.

I have not had coaching with Michael yet so I graded the previous question thinking about Aimee.

It was refreshing to discover a new approach to teaching problem solving.

Connecting with community

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Share the journey with families

Numeracy profile @ SANPS

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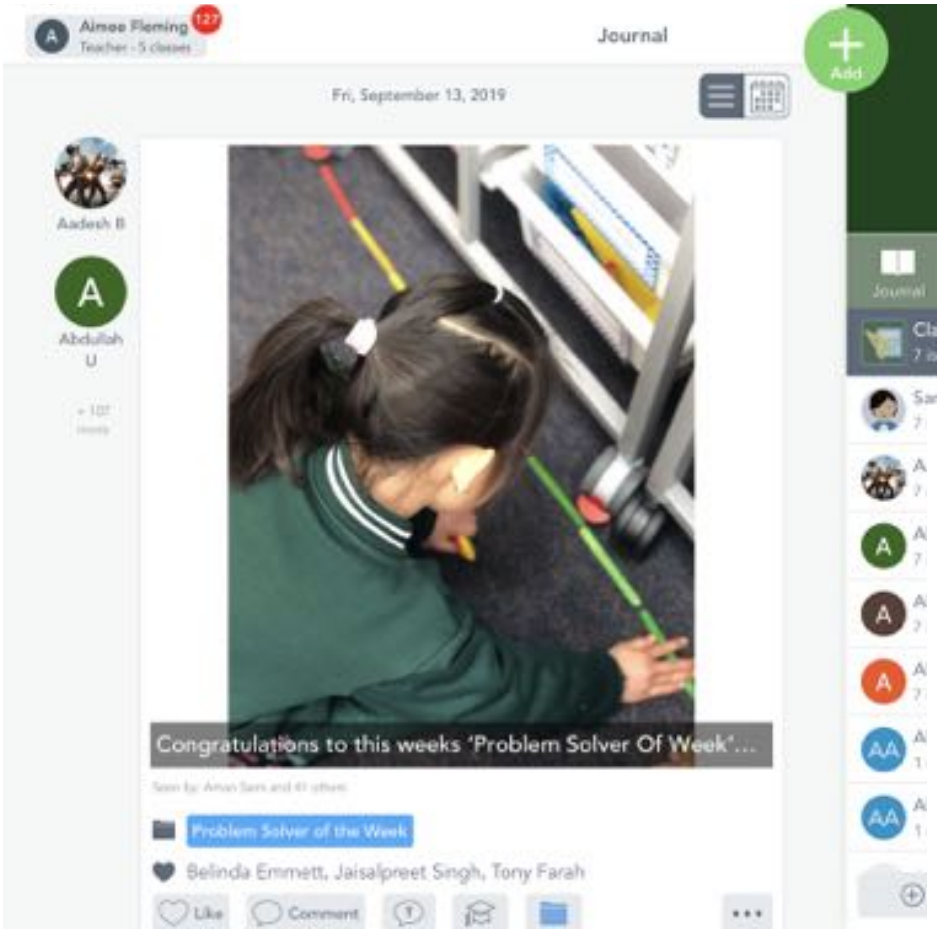

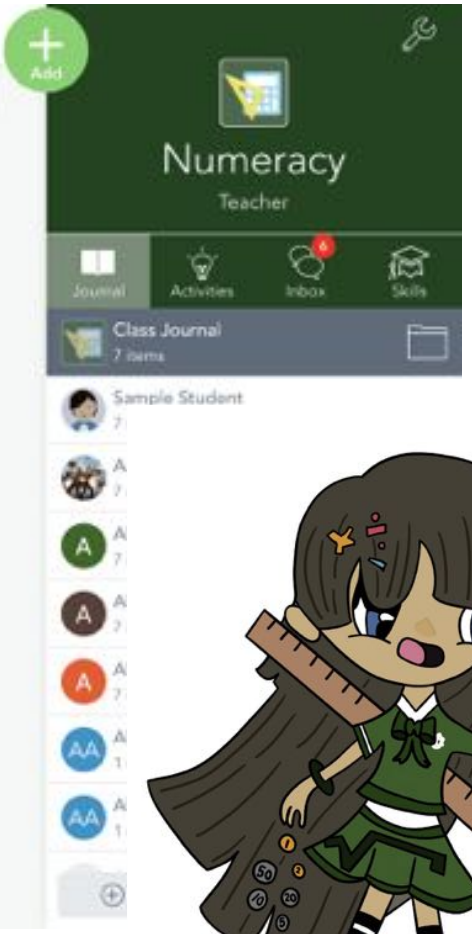

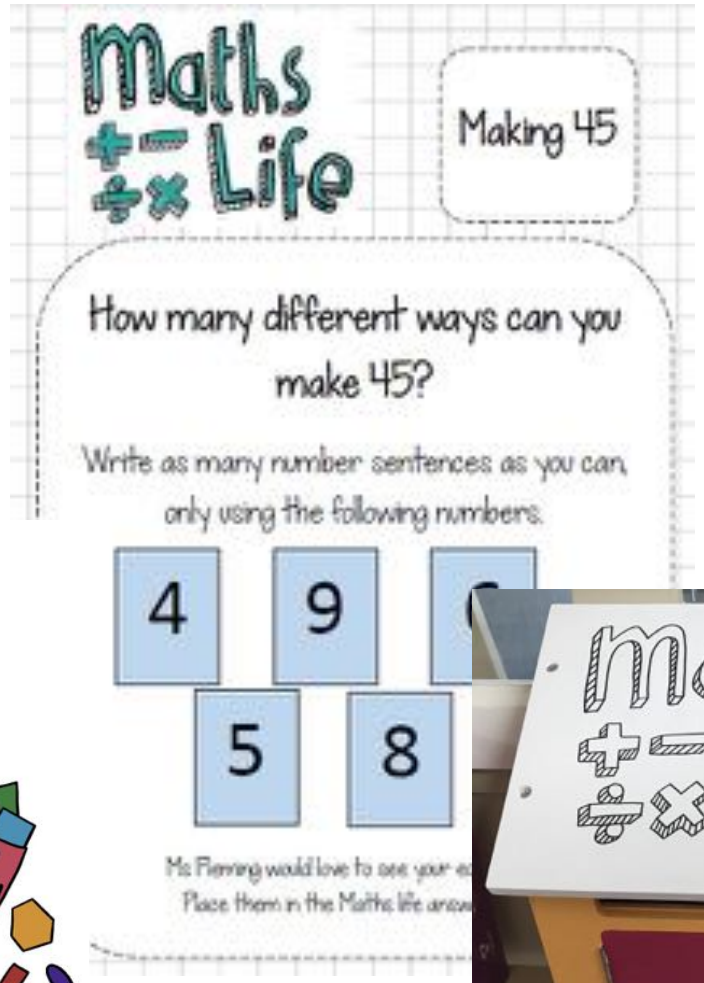

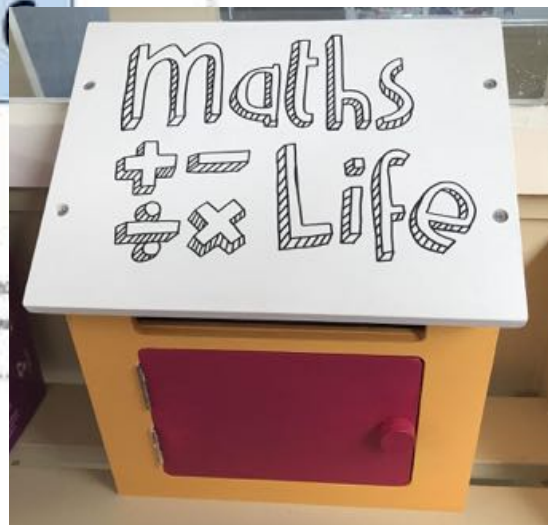


START

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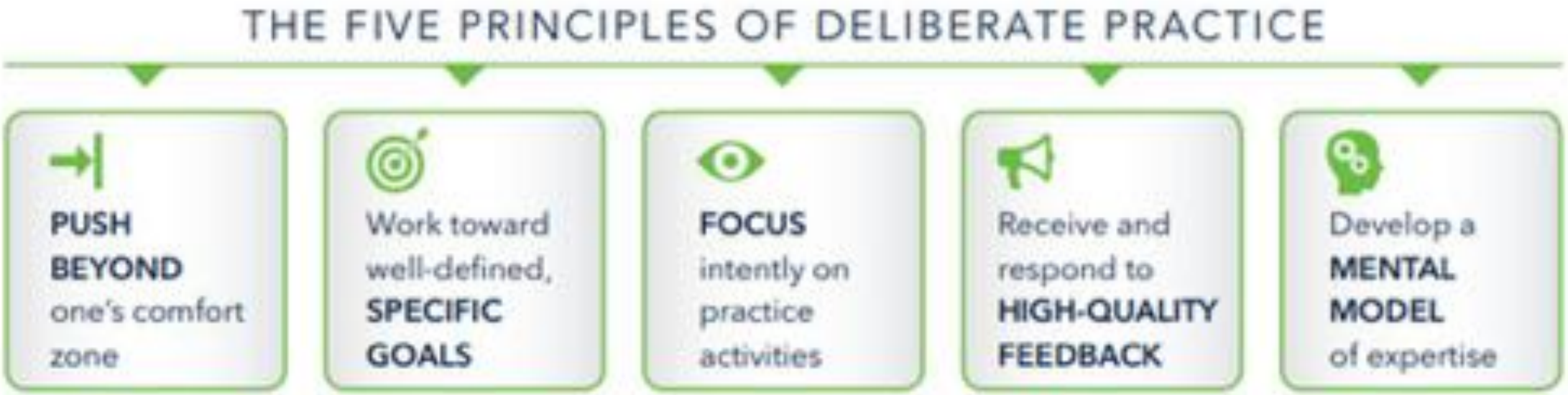

Deans for Impact

Defining focus

Keep in mind

- Time frame
- Resources required
- Mental space and time for learning
- Passengers
- Do-ability!

Taking the next steps

Map out one learning goal, one step at a t time.

What will this professional learning intervention look like. Who will be involved, how long for?

What are the outcomes of each step?

SANPS Action plan

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SANPS Numeracy Action Plan (Term 1 & 2)

Goal/Objective	Sub goal/inquiry	SANPS Input	MAV Input	Measure
Building teaching capacity in mathematics teaching	What does an effective/good maths lesson look like? • Instructional model	• Aimee support at planning and in classroom (modelled teaching/observations) • Whole school PL week 3 (intro to numeracy plan, teacher pre-assessment, intro to coaching) • Whole school PD approx. 3 weekly term 1 and 2 • Identify and develop SANPS instructional model	• Year long support (Mondays) • 4-week block coaching intensives • Support the development of SANPS instructional model • Model 'good' lessons	• All teams participate in 1 to 2 rounds of coaching semester 1 • All teachers have Aimee support (planning and in class support) • 6 after school PD sessions held semester 1 • Draft instructional model developed
	What resources should teachers use?	• Build numeracy kits to support teacher planning • Aimee to introduce physical and website at week 6 & 8	• Support Aimee to develop numeracy kits • Model lessons using resources from kit	• New student tasks added to planners are sourced from numeracy kit
	How do we get students thinking mathematically	• Aimee support at planning and in classroom (modelled teaching/observations) • Tentative afterschool PD Term 2 on thinking/language	• 4-week block coaching intensives • Modelled lesson to promote thinking	• Students begin to use mathematical language to explain their thinking and learning

SANPS Numeracy Action Plan (Term 3 & 4)

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Goal/Objective	Sub goal/inquiry	SANPS Input	MAV Input	Measure
Building teaching capacity in mathematics teaching	What does an effective/good maths lesson look like?	• Finalise the SANPS instructional model • Whole school PL (instructional model) • After school PD sessions held to cover: * Instructional model * Problem solving strategies • Aimee continue to support in weekly planning • Set up 8 week coaching cycle (4 weeks working with Michael, 4 weeks with Aimee) • Teachers setting their own coaching goals for coaching • Set up of peer observations	• Year long support (Mondays) • 4-week block coaching intensives * Model 'good' lessons * Observing teachers and providing feedback Facilitating teacher to set own coaching goals • Support the development of SANPS instructional model	• All teacher participate in 1 to 2 rounds of coaching • All teachers have Aimee continued support (planning and in class support) • After school PD sessions held to cover * Instructional model * Problem solving strategies • Finalise and share the instructional model with all stakeholders • 11 sessions of peer observations
	How do we increase the profile of Numeracy around the school and home?	• Aimee to place a fortnightly maths activity for families to work on together at home. • Start a 'problem solver of the week' display in the school. Aimee to take weekly photos of students and display them with the students work for the school community to see. • Increase the presence of Maths on Seesaw for families to see. • Aimee to distribute professional reading to all staff • Run a competition to design a 'Mathocot'.	• Support and offer resources for 'at home task' for the newsletter. • Pass along any good professional readings for Aimee to distribute to staff.	• By the end of the year there will be 20 challenges in the newsletter • There will be a 'Mathcot' • Create the school maths wall with student of the week problem solving on it. • 11 problem solvers of the week • 15 seesaw posts to do with Maths around the school. • Distribute professional reading twice per term
	How to building Aimee's capacity?	• Attend and present at the MAV conference • Coaching with one teacher during consulting time • Aimee to model in classes and run debrief session in second half of coaching cycles • Having regular meeting times with Michael to discuss/plan/debrief.	• Ellen to support and co-present with Aimee at MAV conference • Michael to provide feedback to Aimee on modelled/debrief sessions • Michael to provide informal feedback/advice on second half of cycle.	• Will present at the MAV conference in December • Aimee to talk lead with 5 teachers during the first half of coaching

Specific goals

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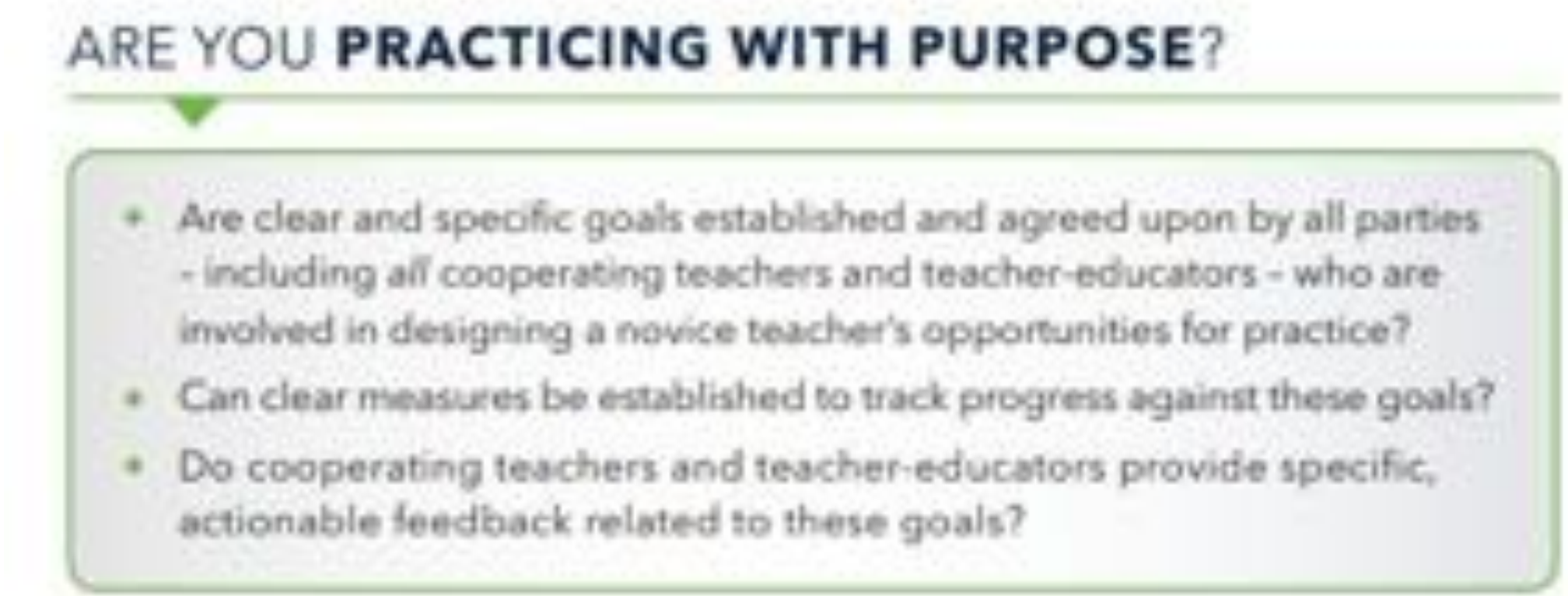

Deans for Impact


CONSISTENCY
is the key to Success

Commit to course corrections

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- Is the plan working or not working
- How can you adapt if not
- Are there things that you're doing that are actually not working for you

Where to go if you need help

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- Find a mentor
- Someone to bounce
- Know your support network
- Reach out
- Ask questions

Questions

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Feedback