

WHY THE BUILDING DOESN'T MATTER (MUCH) BUT THE PEDAGOGY DOES

core uLearn17



Video





WHAT WE MEAN BY THE "TRADITIONAL MODEL" OR "TRADITIONAL TEACHING"...

What is different now?

"Pedagogy is the driver, technology the accelerator, culture is the runway."

Michael Fullan





## Cushla Young & Ryan Fleming

We are two year 5/6 teachers from St John Bosco School in New Plymouth.

This is our journey towards collaboration: in planning, teaching, reflection and assessment.





Strong Pedagogy is the key:

We ask constantly: is what we're adding to the model adding benefit to the learner?





# PERSONALISED LEARNING

How to provide learning for every student in your class, based on where they're at, at that moment.





- → We co-plan
- → We co-assess
- → We co-teach
- → We co-report, monitor and analyse data

We collaborate with students and their whanau via our strong homeroom philosophy.





#### SENIOR LEARNING HUB



Subject page has resources and timetable.

Welcome to SJB's Senior School's Learning Hub. This is where you come to learn. Enjoy!!







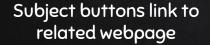


















Technology enables us to better provide personalised learning through blended learning.







# MATHS SYSTEMS & PROCESSES



#### THE FOUNDATIONS

#### SJB MATHS DOCUMENTATION

Maths Overview	Matts Maths Term Planner	Statistics	Geometry & Measurement
Fractions	Mult / Div	Algebra	Number ID
Basic facts Kung Fu Maths	Mathletics	Race to the Treasure	Assessment
Add / Sub	Props / Ratios	Place Value	SJB HUB Number SJB HUB Geo

### SJB Maths Hub Number

<u>Maths</u> >

#### Number



### MATHS TRACKER

Stage 5	Stage 6	Stage 7	Stage 8
Early 5: 1. Know unit fractions  2. Find a FRACTION OF A NUMBER by using repeated addition or subtraction  3. Find ½, ¼ etc of SETS, SHAPES and QUANTITIES (unit fractions)	1. Read any fraction including mixed and improper  2. Count forwards and backwards in halves, quarters, thirds, fifths and tenths  3. Find the total/whole when a part is known.	1. Simplify Fractions  2. Write any decimal as a percentage  3. MULTIPLY FRACTIONS by other FRACTIONS  4. Divide fractions by other fractions  5. CONVERT fractions to	1. FIND FRACTIONS, DECIMALS and PERCENTAGES of amounts  2. Find EQUIVALENT RATIOS by using common factors  3. Find EQUIVALENT RATIOS FOR AMOUNTS  4. Add on or take off percentages from amounts
Stage 5 1. Understand FRACTIONS GREATER THAN 1 WHOLE	4. FIND FRACTIONS OF WHOLE NUMBERS  5. Measure how many times a UNIT FRACTION GOES INTO A WHOLE NUMBER	decimals, and percentages and vice versa. (kung fu 4th dan)  6. FIND PERCENTAGES of whole number amounts using benchmark	5. Know the simplest fraction for any percentage  6. Order any fraction, decimal & percentage  7. Multiply and divide mixed
Write any fraction     Order fractions with the same denominators      Find unit fractions of amounts	6. Solve EQUIVALENT RATE & RATIO PROBLEMS by repeated copying 7. Convert IMPROPER fractions to MIXED FRACTIONS & vice versa	percentages  7. Solve simple RATE PROBLEMS using multiplication  8. Know equivalent fractions (kung fu 3rd dan)	fractions/improper fractions  8. Add & subtract fractions with different denominators
5. Add & subtract fractions with the same denominator	8. Position IMPROPER FRACTIONS ON A NUMBER LINE  9. Order fractions with the same denominators (unit fractions)	9. Order any fractions by size  10. MULTIPLY DECIMALS (using place value or compensating from tidy	

#### MATHS HUB

#### 5. Express remainders as whole numbers, (fractions or decimals)

Learn it	Practise it	Prove it
Remainders Video  Remainders  81 ÷ 9 • • • • • • • • • • • • • • • • • •	Teacher Tools page 60-61  Self Marking Activity 1  Self Marking Activity 2  Self Marking Activity 3  Div with R practice 1  Div with R practice 2  Div with R for masters  Mathopolis	Screenshot these into Explain Everything:  Division With Remainders  Division With Remainders 2

#### HOW DO THEY KNOW WHAT TO LEARN?

# Fractions, Decimals and Percentages Pre Test

This pre test will help you and your teacher find out what you need to learn and what your next step will be when you are on "maths hub" on your timetable.

Give it a crack! Be determined to get as much right as possible but don't worry about getting it wrong. No fear! Growth mindset!!

Name:

#### Stage 7

1. Simplify Fractions
Simplify these fractions:

a) 
$$\frac{3}{9} =$$

b) 
$$\frac{12}{16}$$
 =

c) 
$$\frac{20}{25} =$$

2. Write any decimal as a percentage

a) 
$$0.4 =$$

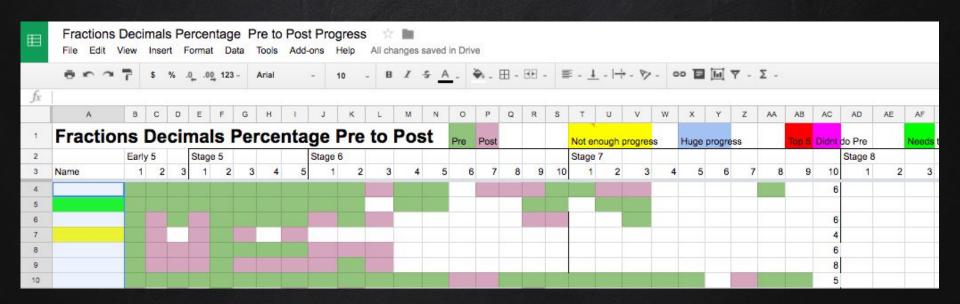
b) 
$$0.02 =$$

d) 
$$0.375 =$$

### FILLING IN TRACKERS

Stage 5	Stage 6	Stage 7	Stage 8
Early 5:	1. Read any fraction	1. Simplify Fractions	1. FIND FRACTIONS,
1. Know unit fractions	including mixed and		DECIMALS and
	improper	2. Write any decimal as a	PERCENTAGES of amounts
2. Find a FRACTION OF A	2. Count forwards and	percentage V	2. Find EQUIVALENT RATIOS
NUMBER by using repeated addition or	backwards in halves,	3. MULTIPLY FRACTIONS by	by using common factors
subtraction	quarters, thirds, fifths	other FRACTIONS	3. Find EQUIVALENT RATIOS
2 Find 1/ 1/ ato a5	and tenths	3.1.0. 110.10.10	FOR AMOUNTS
3. Find ½, ¼ etc of SETS, SHAPES and	3. Find the total/whole	4. Divide fractions by other	A statement of the stat
QUANTITIES (unit	when a part is known.	fractions	4. Add on or take off percentages from amounts
fractions)	4. FIND FRACTIONS OF	5. CONVERT fractions to	percentages from amounts
Stage 5	WHOLE NUMBERS	decimals, and percentages	5. Know the simplest fraction
Stage 5 1. Understand		and vice versa. (kung fu 4th	for any percentage
FRACTIONS GREATER	5. Measure how many times a UNIT FRACTION	dan)	6. Order any fraction,
THAN 1 WHOLE	GOES INTO A WHOLE	6. FIND PERCENTAGES of	decimal & percentage
	NUMBER	whole number amounts	7. Multiply and divide mixed
2. Write any fraction	C Colve FOLITIVALENT	using benchmark percentages	fractions/improper fractions
	6. Solve EQUIVALENT RATE & RATIO	percentages	O Add Coults of Coults
3. Order fractions with the same denominators	PROBLEMS by repeated	7. Solve simple RATE	8. Add & subtract fractions with different denominators
V Sollie dello lillideo/S	copying	PROBLEMS using multiplication	directors designation
4. Find weit freetiens of	7. Convert IMPROPER	marapheacton	
4. Find unit fractions of amounts	fractions to MIXED	8. Know equivalent fractions	
The state of the s	FRACTIONS & vice versa	(kung fu 3rd dan)	
5. Add & subtract fractions with the same	8. Position IMPROPER		
denominator V	FRACTIONS ON A	9. Order any fractions by	
	NUMBER LINE	size✓	
I completed stage5	9. Order fractions with	10. MULTIPLY DECIMALS	
1 completed stages	the same denominators	(using place value or	
	(unit fractions)	compensating from tidy	

#### ASSESSMENT & ANALYSIS



We accommodate a wide range of stages as two classes are combined

This assessment sheet is solely for teachers, but the assessment itself is for students to know where they're at.

Data informs us if this system is working. We dig into our data extensively to inform our model and practices.

### MATHS ROTATION - ROOMS 8 & 9

Quick 10 Aristotle

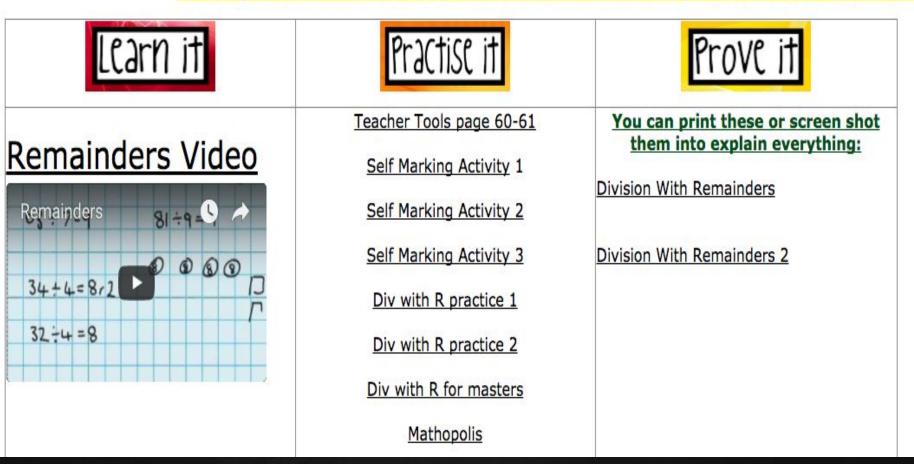
	MON	TUES	WED	THURS
FIBONACCI	Basic Facts	PRACTICE IT	MRS YOUNG	Mathletics
	Mrs Young	Mathletics	PRACTICE IT/ Mathletics	MRS YOUNG
PYTHAGORAS	Basic Facts	MRS YOUNG	Hub In/Maths	PRACTICE IT
	Maths Hub	PRACTICE IT/Mathletics	MRS YOUNG	Hub
ARCHIMEDES	Basic Facts	Maths Hub	PRACTICE IT	MRS YOUNG
	Maths Hub	MRS YOUNG	Mathletics	PRACTICE IT/Maths Hub
NEWTON	Basic Facts	PRACTICE IT	Mr Heming	Hub
	Mr Fleming	Mathletics	PRACTICE IT/ Mathletics	Mr Heming
PLATO	Basic Facts	Mr Fleming	Prove it	PRACTICE IT
	Maths Hub	PRACTICE IT/Mathletics	Mr Fleming	Maths

We use an opt out model, not an opt in model.

#### MY TIMETABLE SAYS I'M ON MATHS HUB - WHAT DO I DO?

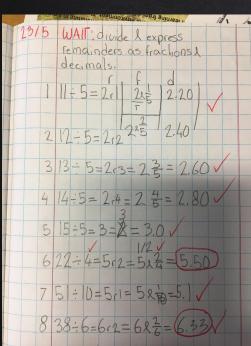
Stage 5	Stage 6	Stage 7	Stage 8
Early 5:  1. Know unit fractions	1. Read any fraction including mixed and improper ✓	<ol> <li>Simplify Fractions</li> <li>Write any decimal as a</li> </ol>	1. FIND FRACTIONS, DECIMALS and PERCENTAGES of amounts
2. Find a FRACTION OF A NUMBER by using repeated addition or	2. Count forwards and backwards in halves,	percentage  3. MULTIPLY FRACTIONS by	2. Find EQUIVALENT RATIOS by using common factors
subtraction  3. Find ½, ¼ etc of	quarters, thirds, fifths and tenths  3. Find the total/whole	other FRACTIONS  4. Divide fractions by other	3. Find EQUIVALENT RATIOS FOR AMOUNTS
SETS, SHAPES and QUANTITIES (unit fractions)	when a part is known.	fractions   5. CONVERT fractions to	4. Add on or take off percentages from amounts
Stage 5 1. Understand	WHOLE NUMBERS  5. Measure how many	decimals, and percentages and vice versa. (kung fu 4th dan)	5. Know the simplest fraction for any percentage
FRACTIONS GREATER THAN 1 WHOLE	times a UNIT FRACTION GOES INTO A WHOLE NUMBER	6. FIND PERCENTAGES of whole number amounts	6. Order any fraction, decimal & percentage  7. Multiply and divide mixed
<ol> <li>Write any fraction</li> <li>Order fractions with</li> </ol>	6. Solve EQUIVALENT RATE & RATIO	using benchmark percentages 7. Solve simple RATE	fractions/improper fractions  8. Add & subtract fractions
the same denominators	PROBLEMS by repeated copying  7. Convert IMPROPER	PROBLEMS using multiplication	with different denominators
4. Find unit fractions of amounts  5. Add & subtract	fractions to MIXED FRACTIONS & vice versa	8. Know equivalent fractions (kung fu 3rd dan)	
fractions with the same denominator	8. Position IMPROPER FRACTIONS ON A NUMBER LINE	9. Order any fractions by size	
I completed stage5	9. Order fractions with the same denominators (unit fractions)	10. MULTIPLY DECIMALS (using place value or compensating from tidy	

### 5. Express remainders as whole numbers, (fractions or decimals)

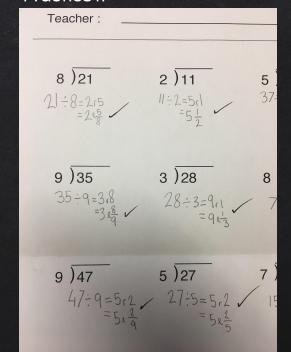


# INDEPENDENT LEARNING PROCESS - I CAN EXPRESS REMAINDERS AS WHOLE NUMBERS AND FRACTIONS

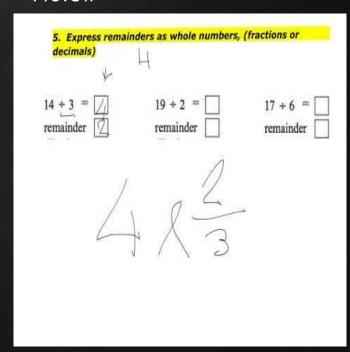
#### Learn it



#### Practice it



#### Prove it



#### EXPLAIN EVERYTHING



Interactive Whiteboard











Review



#### **Fractions of a Number**

Worksheet Number 3

Name: \_\_\_\_\_

$\frac{1}{5}$ of 35 =	8 of 9 =	1 of 6 =
1 of 60 =	$\frac{7}{10}$ of 30 =	1 of 15 =
1 of 4 =	1 of 20 =	2 of 25 =



Teacher









Class Journal 1193 items



Ashton Irvine 111 items



Bede Colbourne 122 items



Ben Franklin 140 items



Blair Jensen

Student Code

Invite Families



Students highlight their tracker



Pre test, mark together

THE PROCESS

Learn it: Videos, teacher



Post test & improvement reflection



Prove it:
Explain
Everything



Practice it: worksheets, online etc

#### FOUNDATIONS

- School curriculum documents & learning progressions
- 'Digitalised textbook' Google site/Maths hub/hyperdocs
- Rigour
- High expectations







### READING SYSTEMS & PROCESSES

Digitising meaningful independent reading



#### READING ROTATION

THURSDAY

GROUPS	MONDAY	TUESDAY	WEDNESDAY	
VINCE FORD	Persuasion Wall	Library		
WALTS		Persuasion Wall		Мо
		VOCABULARY SPELLING CITY	Persuasion Wall	Glo



# Room 9's Rotation

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
Context Clues	Cloze	<u>Inference</u>	COMPREHENSION
IRC	IRC	Library	TEACHER
IRC	IRC	<u>IRC</u>	
<u>Inference</u>	Cloze	TEACHER	Context Clues
IRC	IRC	Library	IRC
TRC	IRC	<u>IRC</u>	IRC
Sentence completion	Cloze	<u>Teacher</u>	<u>Inference</u>
TEACHER	IRC	Library	IRC
Follow Up	IRC	IRC	IRC
TEACHER	Cloze	Sentence completitor	TEACHER
Follow Up	TEACHER	Library	Follow Up
IRC	IRC	IRC	SPELLING CITY
	Context Clues  IRC  IRC  Inference  IRC  Sentence completion  TEACHER  Follow Up  DEACHER  Follow Up	Context Clues  IRC IRC IRC IRC IRC IRC IRC IRC IRC IR	Context Clues  Cloze  IRC  Library  IRC  IRC  IRC  IRC  IRC  IRC  IRC  IR

Room 8's Rotation



#### INDEPENDENT READING PROJECTS

Choose at least three topic from the list and complete as many of these persuasion wall tasks as you can. You must complete the Grey tasks. Choose your favourite topic to do the last row of tasks on. Use the Google Slides to monitor and track your work each week. Keep on top of the project and manage your time well.

#### Points:

5 points for top tier tasks. 10 points for bottom row tasks.

#### Grades:

A+ 200 A 180-199 A- 170-179

B+ 150-169 B 130-149 B- 110-129

C+ 100-109 C 80-99



Project Outline.

Your goal for this term's project:

#### PERSUASION WALL

What steps or planning will you do to ensure you reach this god

ORGANISER Break your topic down into parts. Complete the Hierarchical Organiser.

READ Read a text on your chosen topic. Keep a track on your Reading Log.

Mind map all the things you already know from five different topics from the list.

Think about the Pros and Cons of your topic. Complete the Discussion Web.

**EMOTIONS** What words does the author use to persuade us? Identify 10 and use in a sentence.

Write down at least 5 open questions.

Think about your topic deeply. Complete a PMI stating what's positive, minus (negative) and

interesting.

Tasks



JCE IT! oe one Read a text on your d you've chosen topic. Keep resting. a track on your e it's in Reading Log. words.

QUESTIONS Write down at least 5 open questions.

READ Read a text on your chosen topic. Keep a track on your Reading Log.

FACT FIND Read and then answer at least 3 of your questions.

USING MANY SOURCES Think about all the different places you can find information. BOOK REPORT Complete the Persuasion Book Report

IN MY WORD Write 3 paragra on what you'v learnt.

rea

You

Co

PROS & CONS Think of all the Pros. and Cons. Complete the Decision-Making

Guide.

Think about 2 opposites; one side or the issue and the other. Complete the T Chart worksheet.

T CHART

READ Read a text on your chosen topic. Keep a track on your Reading Log.

IN MY WORDS Write 3 paragraphs on what you've learnt.

FIX THE PROBLEM Think of all the elements that make up your problem. What's the cause. the problem and the

solution.

WHATS THE PROBLEM? Think about the problems within your topic deeply. Complete Fix the

MIND MAP IT Make a mind mag on one of the topics that you've learnt a lot about.

MIND MAP IT

BACK IT UP

**EMOTIONS** 

BOOK REPORT

N MY WORDS

FACT OR OPINI

### TRACKING

#### Your Tracker

	and the state of t	:	(L	
weeks	Tasks	Begun	Done	Points
1	5 open questions Mind Map it	<b>~</b>	<b>~</b>	10
2	Organiser	<b>~</b>	<b>~</b>	5
3	Read. discussion web. Read. Evontive words	<b>▽</b>	<b>~</b>	20
4	Read+2. PMI Note talking in my own words	<b>~</b>	<b>~</b>	20
6	Read+2			
7	Presentation 2 read+3			
8	Presentation 1 read+1			
9	Presentation 1			

Use of Hapara to quickly and easily access students' slides.

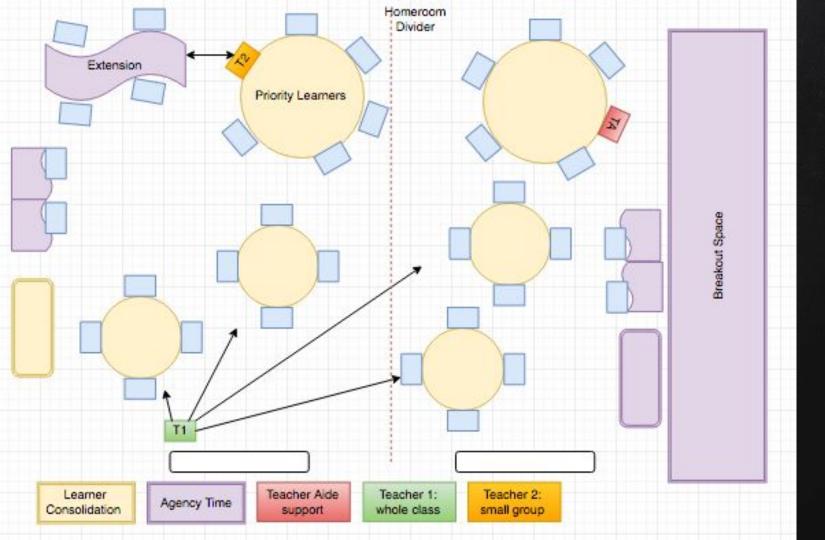




### Writing Systems & Processes

Utilising the co-teaching model effectively.





#### Writing on the Hub

#### WRITING PLAN TERM 3 - ROOM 8 & 9

See Also: Yearly Literacy Plan Writing Rotation

	Monday Lang' Ex' Brainstorm	Tuesday Grammar & <u>Punc</u> '	Wednesday Big Write 1	Thursday Big Write 2	Friday Edit and Publish
W1		Persuasive Writing	5 sentence persuasive argument	10 sentence persuasive argument	Typed up but photo of draft to go on SeeSaw
WALTS			WALT: write a 5 sentence P.A.	WALT: write a 10 sentence P.A.	
Focus groups & their WALTS					
Notes					
W2		Commas for embedded clauses.	Introduction to a persuasive argument	Write second version using another technique	Typed up but photo of draft to go on SeeSaw
WALTS		WALT: use embedded clauses	WALT: write an introduction for a		



One of the key competencies that is required for learner agency to be successful is the self-regulation of the learner:

- the ability to focus,
- to be accountable,
- to follow a pathway.

"Scaffold that release of responsibility"





# PROBLEMS & SOLUTIONS

Target Kids, Lost Children and Technology



### TARGET LEARNERS, LOST CHILDREN, POOR SELF MANAGERS

	MON	TUES	WED	THURS
FIBONACCI	Basic Facts	PRACTICE IT	MRS YOUNG	Prove it/ Mathletics
	Mrs Young	Prove 11/ Mathletics	PRACTICE IT/ Mathletics	MRS YOUNG
	HORDAY	TUESDAY	WEDMISDAY	THURSDAY
Morpurgo	Context Clues	Close	Inference	COMPREHENSION
	IRC	IRC	Library	TEACHER
	IRC	IRC	IRC	Follow Up

#### POOR SELF MANAGERS

- Sometimes they can't help it, sometimes (most of the time) they can.
- Accountability parents expect to see things on SeeSaw, especially on Friday.
- Maths Trackers & IRP points system create competitiveness in most boys – a growth mindset culture will ensure they don't see each other as a threat, but as an inspiration.





On the importance of Executive Functioning:

"Training a whole classroom in focus,
self-control, and memory has a bigger effect on
math achievement
than providing one-on-one tutoring,".

Wexler



#### TECHNOLOGY ISSUES



#### Cyber Safety and Behaviour:

- Professional Self vs Personal Self.
- Tools to monitor screens and usage: Hapara, Apple Classroom.
- Being vigilant on restriction settings and apps on iPads.

#### BYOD and issues with Tech:

- If you make it, you explain it.
- 'How to' videos for parents and teachers.
- Make the systems easy!

#### Time spent on resources:

- Those who can, do and then support others.
- Hubs take ages: opportunities for clusters of schools.
- Be smart about sharing resources.



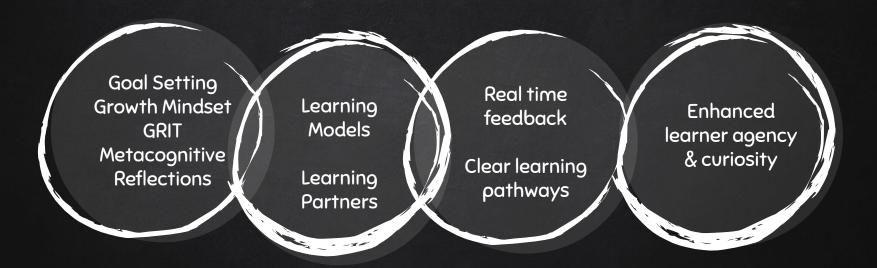


The importance of school culture





#### WHAT CONTRIBUTES TO ACCELERATION?





# ACCELERATED PROGRESS

We have got out of their way!

Lifted the ceiling!

Bright kids are taking off.





### OUR PRE-FABS!



So... now back to the Prefabs! You can do collaborative teaching in old classrooms, but it is more difficult.

We're lucky!

We're about to be renovated.

We need our space adapted to suit our pedagogy – not the other way around!



More
Flipped Authentic
Learning inquiry





# THANKS!

Any questions? Have a play on our Hub?

http://bit.ly/2wpwedS

You can find us at cushla@sjb.school.nz @cushlayoungnz ryan@sjb.school.nz @flemhawke

