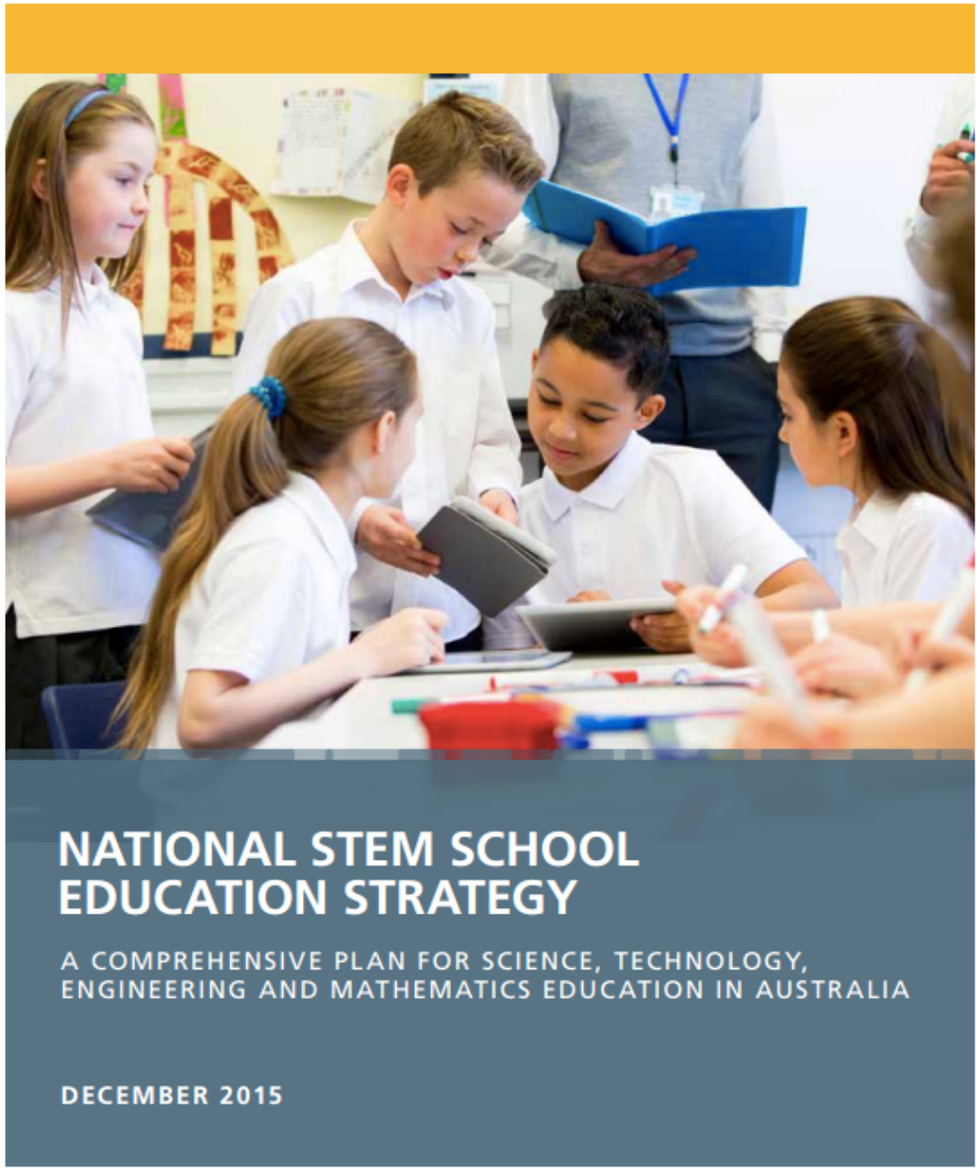
YEAR 8 PBL @

WIRREANDA
SECONDARY SCHOOL

Modern Learners Need

Education Council



- a focus on the development of **higher order computational**, **problem solving** and **creative thinking** skills
- **integration** of **statistical concepts**, **data analysis** and **problem solving** skills into school programs
- **curiosity** and connection of STEM learning to solve **real world problems**, including through **collaborative** and **individual** learning experiences that are **hands-on** and **inquiry-based**

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STEM & Innovation

The National STEM School Education Strategy 2016 – 2026 aims to lift foundational skills in STEM learning areas, develop mathematical, scientific and technological literacy, and promote the development of the 21st century skills of **problem solving**, **critical analysis** and **creative thinking**.

The government will work to ensure that Australians have all the skills required to innovate, including STEM skills, **business** and management capability, and the ability to work across the **humanities** and **social sciences** disciplines to achieve solutions to **real-world problems**.

The integration of STEM skills is key to the success of innovation. This requires a wide range of skills, including **business and entrepreneurial skills** and skills from **humanities**, **arts** and **social sciences** to understand how and why innovation grows or fails, how people make decisions, and how individuals, organisations and communities respond or adapt to change.

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Year 8 PBL Provides Opportunity

Supports a clear VISION for HOW we want our Middle Schoolers to experience learning & WHAT are the most important and relevant GRADUATE qualities

- BLUR the lines between disciplines
- Keep skills and capabilities at the CORE – communication, critical and creative thinking, teamwork, digital literacies & citizenship, empathy & self-awareness
- EXHIBITION and AUTHENTIC showcases to celebrate learning that has purpose and relevance
- Time structured to allow FLEXIBILITY and access to a range of EXPERTS, SPACE and TECHNOLOGY

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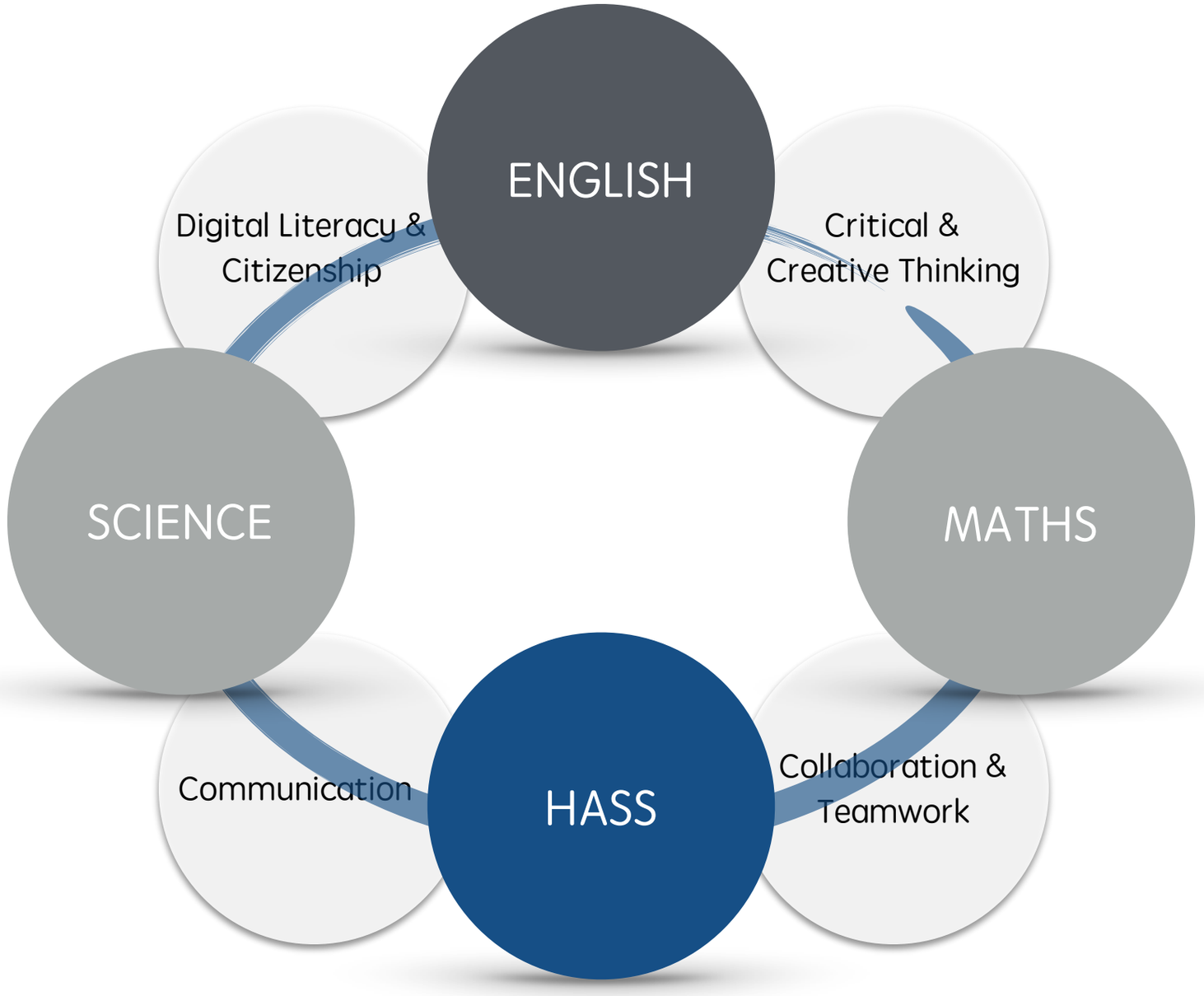
Year 8 PBL 2017



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Project Based Learning

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What is Project-Based Learning?

- principles
- compared to 'traditional' content delivery

Planning for Understanding in PBL

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Project Based Learning
@ Wirreanda Secondary School

What is Project-Based Learning?

PBL:

- involves teaching and learning approaches that focus on the big ideas and understandings of a discipline or integrated disciplines,
- involves students in problem-posing, problem solving and other meaningful authentic tasks,
- allows students to work autonomously to build their own learning over an extended period of time,
- culminates in realistic, student-generated products and exhibitions.

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Project Based Learning

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What are the Principles of Project-Based Learning?

- Student-centred
- Authentic in content and purpose
- Involves challenging projects/problems
- Product, presentation, performance or exhibition
- Collaborative and cooperative learning
- Incremental and continual improvement
- Teacher as a co-designer
- Explicit learning goals
- Integrates technology and digital literacies

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Project Based Learning

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What is Project-Based Learning?

- compared to 'traditional' content delivery

Traditional pedagogy

Content driven
Fixed units of discipline
Test and compare
Independent work
Student as the receiver
Goal is to master facts

Project-Based Learning

Problem-solving
Interdisciplinary
Criteria based
Collaborative work
Student as investigators
Goal is to understand & apply skills and understanding

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Planning for Understanding in PBL– starting with the end in mind

- What will students understand and be able to do as a result of this project?
- How will they interact and relate to each other and to adults?
- How will they think? How will they think about their own learning?
- How will they apply AND transfer their knowledge in the real world?
- How will the real world influence students and the curriculum?

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Planning for Understanding in PBL– BIG Idea or Essential Question

What are the enduring understandings or big ideas that students will understand by the end of the project?

Year 8 PBL Term Themes

Non-Googleable Questions

TERM 1 COMMUNITY

How can a young person change their world?
How does a community survive?
How can I craft the right community for me?

TERM 2 IDENTITY

How can I build a better me?
How can I grow for my own benefit?
What does it mean to be an average Australian?

TERM 3 FUTURE

What could the future be?
How can the past and present inform the future?
How can we make valid predictions for the future?

TERM 4 INVENTION

How can we design a solution to an everyday problem?
How can inventions improve human lives?
How can we turn ideas into reality?

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CREATING Structures to Support Learning

An example of PBL LEARNING BLOCKS

For Year 8 – 8 blocks over the week

2017 TIMETABLE

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 AM			PD 8:30-10:10		
9:00 AM	PBL	Learning block 1		PBL	Learning block 1
10:50 AM	HG	HG	HG (10:30-10:50)	HG	HG
11:00 AM	RECESS			RECESS	
11:20 AM	PBL	PBL	PBL	Learning block 2	PBL
1:05 PM	LUNCH		(12:40-1:40)	LUNCH	
1:45 PM	Learning block 3	PBL	Learning block 3	Learning block 3	PBL
3:30 PM	DISMISSAL		DISMISSAL	DISMISSAL	

Facilitates deeper learning and opportunities for integrated approaches and PBL

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Year 8 PBL Teachers

Sometimes it is a little scary giving students so much control over the direction of their learning, however, I am constantly amazed at the connections they make between different ideas and their ability to demonstrate their learning in such creative ways.

— Natalie Maddern

The PBL model provides an important opportunity for us to present authentic challenges to students. It breaks down a range of traditional relationships and structures related to school and, while this can certainly be a challenge to us as educators, it is also vitally important in preparing students for their futures.

– Brett Whittaker

Teaching PBL has helped me be a more collaborative person. It's been challenging trying to integrate different areas of curriculum, but as a result I've designed lessons that I never would have considered previously. The experience has challenged me to be a better teacher, and I hope it's been challenging for students!

– Alison Buse

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Year 8 PBL Teachers

As a teacher I have have had difficulty building productive struggle into my classroom as I felt that I needed to 'rescue' the students by giving them the answers to the questions they had, rather than letting them find a method to solve them. This year teaching PBL has made me realise the importance of letting students flounder and develop their own problem solving methods as this makes them create their own understanding rather than just what I tell them.

I hope that through teaching in the PBL model that the students gain a greater depth of understanding because they have designed their learning, it hasn't been forced upon them. I also hope that we are helping to mold naturally inquisitive learners who don't just accept an answer because they were given it, but instead question and critique it to determine if it truly is correct or the best answer.

— Julia Nicholson

Year 8 PBL Teachers

PBL has allowed us to design learning experiences for students which places them in the driver's seat of the inquiry. I've enjoyed thinking of ways to hook the students and harness their curiosity – predicting what they might find interesting or provoking and planning the learning to be shaped around that.

I have worked particularly close with a science teacher and learnt ways to develop mathematical and scientific learning outcomes asynchronously. Examples of this is tracking the learning process by collecting data about juggling and how this improves with practice, then learning about the brain functions and how connections are made through learning.

Being new to teaching Year 8 students has been the most challenging aspect. In regards to the PBL model, it is not a new style of teaching to me but it has been challenging for the students to adapt to the style of learning. In particular, students are being required to make connections across subjects and topics, which they have been improving on throughout the topics.

I hope that, through this approach, students develop an understanding that is connected across disciplines and relevant to real-world applications. More importantly, they see the importance of their learning and yearn for a deeper understanding.

– John Rowe

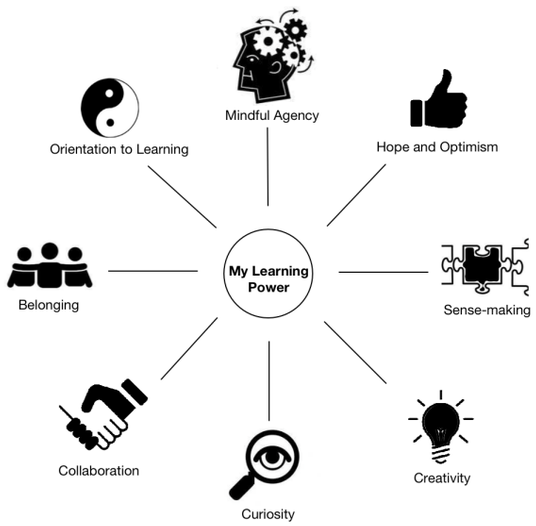
PBL @ WSS - TEAMS

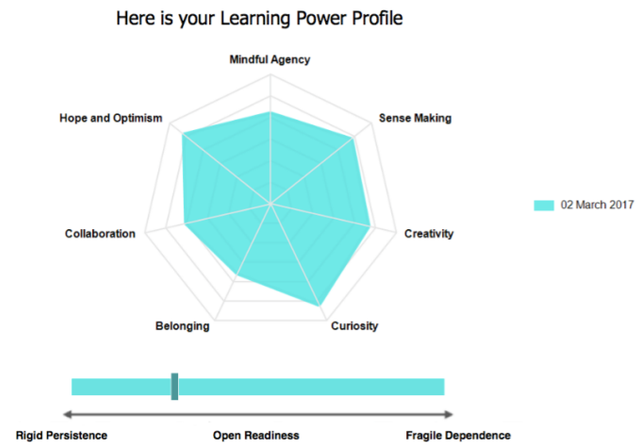
PBL Teachers work as a team to investigate, test and review their teaching programs.

Q. HOW CAN WE FOSTER THINKING ABOUT THINKING – METACOGNITION?

learning emergence

CLARA





Q. HOW CAN WE DEVELOP DIGITALLY LITERATE AND GLOBAL CITIZENS?

Want to know more about PBL?

For further information about our Year 8 PBL program please contact us.

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