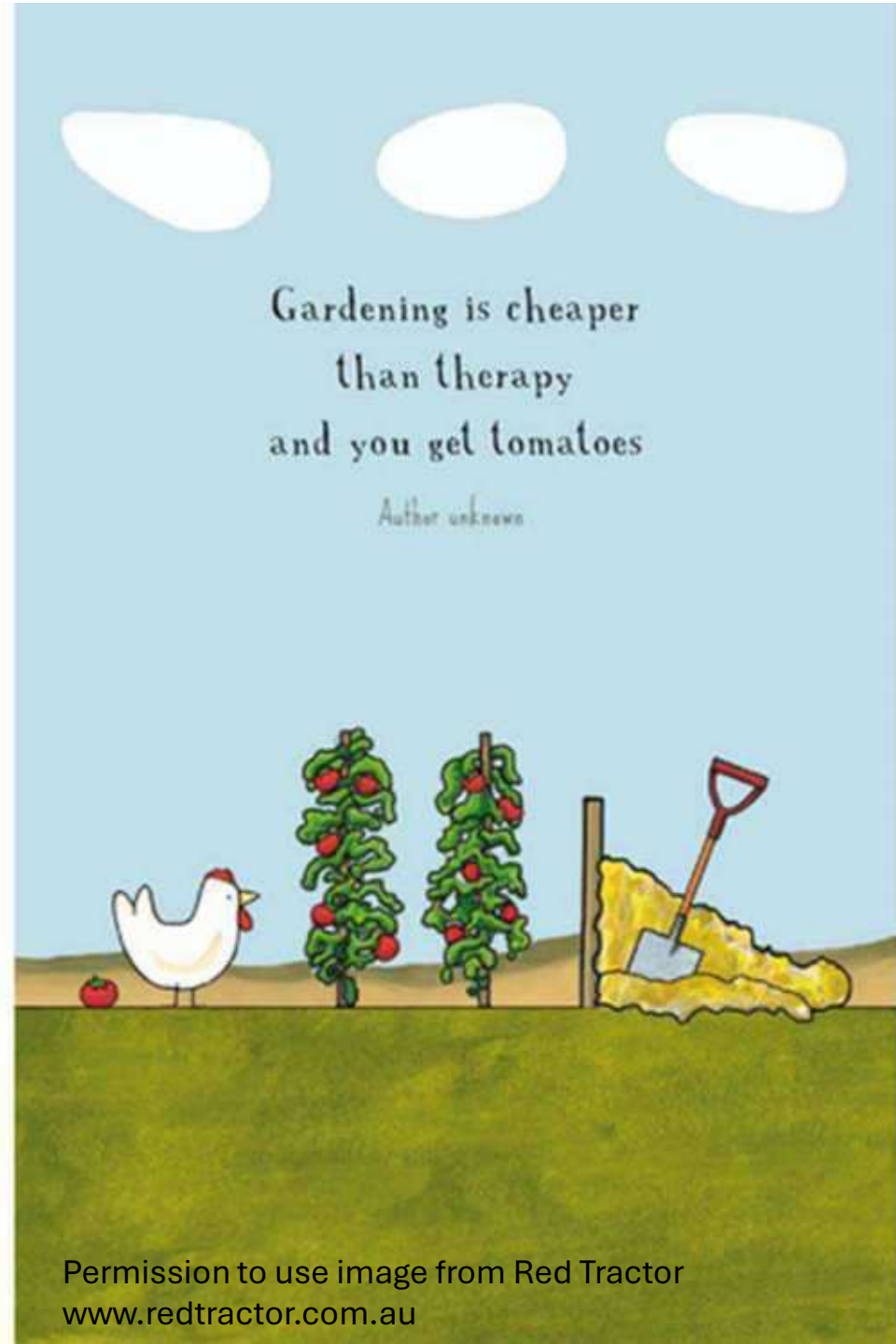


Gardening and bees are cheaper than therapy... and you get honey and tomatoes

Presented by

Ross Whitfeld
&
Paul Cannings

The Beach School



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Menu



- Snapshot of The Beach School (TBS)
- TBS beach school vision and mission statements
- Introduction to Garden Therapy Theory
- Gardening with Students- What is Build It Crew? (BIC)
- Previous and Current Project Snapshots
- Positive Outcomes of BIC
- Pitfalls and Challenges of School Garden Projects
- Question Time

The Beach School Snapshot

**BELONG
BELIEVE
BEYOND
BEACH SCHOOL**
A place to be you

Address: 10 Malinya Road, Allambie Heights, Northern Beaches NSW

DoE Classification: ED/BD SSP
(School for Specific Purposes with students with emotional and behavioural disorders)

Maximum Student Numbers: 42

Staff Numbers: 25 (Humans)



The Beach School Mission

The Beach School's mission is to provide an alternate educational setting for local secondary students who are unable to attend their local schools because of emotional and/or behavioural challenges.

We aim to provide a broad spectrum of educational opportunities to allow our students to thrive with a responsive pedagogy, and in a culture of inclusiveness, growth & self-determination.

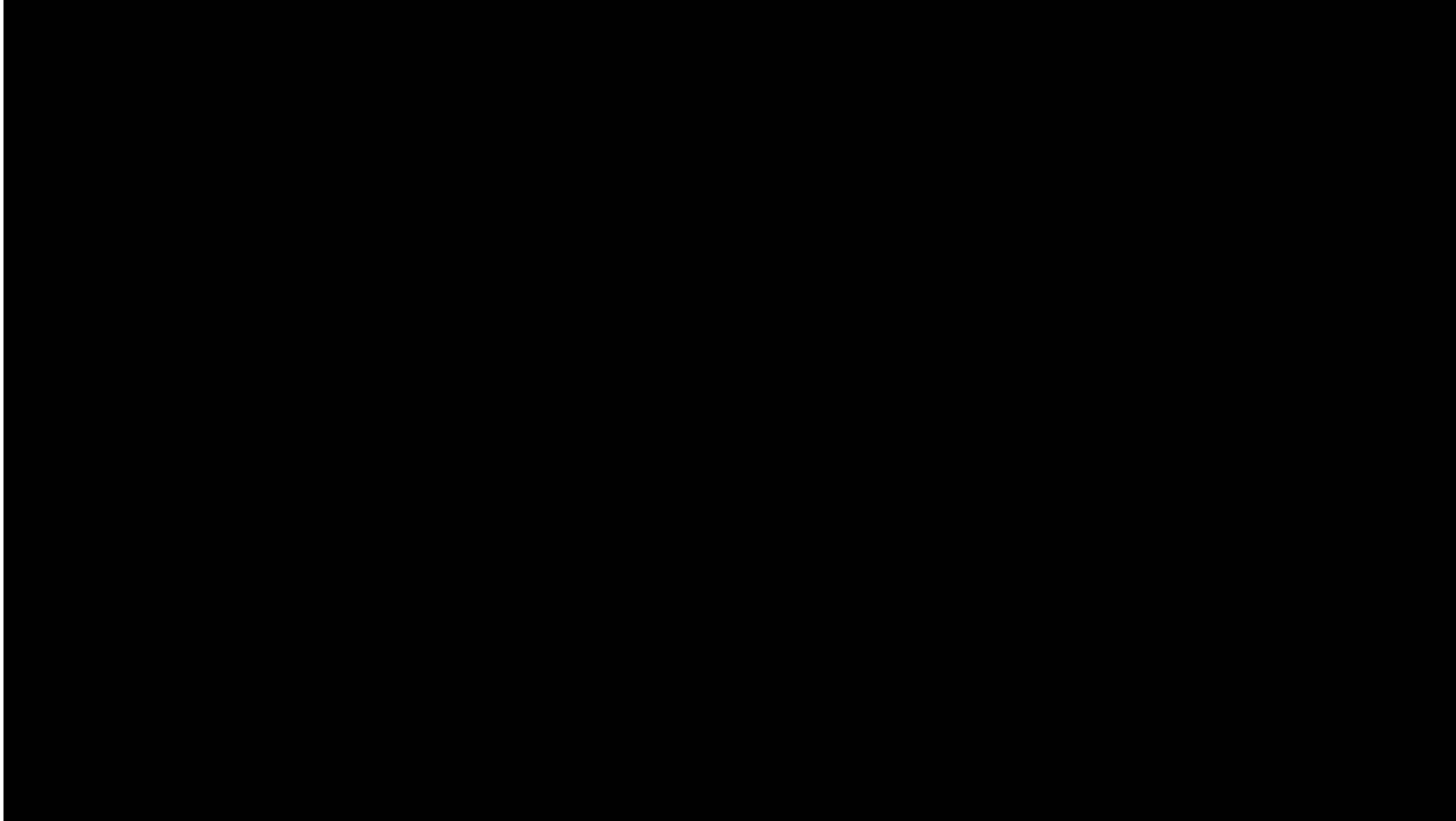


Sustainable School Mission: Nurture Our School with Nature



- A school's physical environment plays a crucial role in a student's emotional, mental, relational health.
- A student cannot maximise their learning until these factors are addressed.
- Improvements to the biodiversity of the school, promote sustainability, heal nature and in turn heal our school community.

The Setting –Trauma Supportive



Staff Breakdown

POSITION	NUMBER
Principal	1
Deputy	1
Assistant Principals: Transition & Wellbeing (teaching)	2
School Counsellor	1 (2 days per week)
Careers Counsellor (teaching)	1
Teachers	7
Student Learning Support Officers	6
Student Support Officer	1
Business Manager	1
School Administration Officer	1
General Assistant	1 (2 days per week)

Our Animal Staff

- Dogs: 9 (visiting alternate days)
- Guinea Pigs: 4
- Pygmy Goats: 3 Soon to arrive
- Chickens: 5
- Other Birds: 12 soon to arrive
- Koi Fish: 5
- Tropical Fish: 12
- Childrens Pythons: 2
- Central bearded dragon 1



Year Breakdown

7	8	9	10	11	12
0	5	7	15	7	5

Gender Breakdown

Male	Female	Trans
15	23	1

42
Student

Diagnosis

1 – 3	4 – 7	8 – 10	> 10
12	25	1	1

Predominant Diagnosis

- ADHD
- Autism, predominantly Level 2: Requiring substantial support
- Depression
- Anxiety
- Non suicidal self injury
- Trauma

Medication & Allied Health (n = 42)

MEDICATION		
1 – 3	4 – 5	5 +
24 students	5 students	4 students

ALLIED HEALTH		
Psychiatrists	Psychologists	Paediatrician
15 students	19 students	9 students

Other supports include

- Speech Pathologists
- Occupational Therapists
- DCJ & Youth Justice
- Dieticians
- SDECC, YESS, CYMHS, Headspace

TBS Trauma Informed Principles

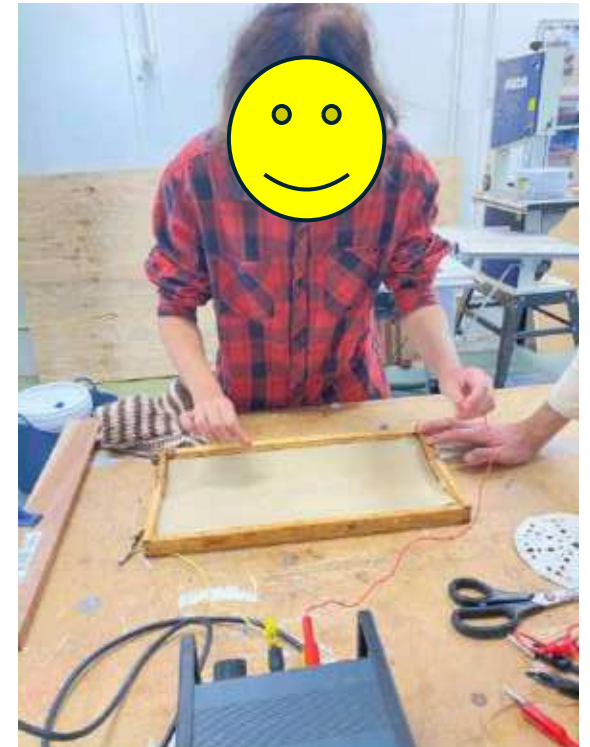


- Safety (physical & psychological)
- Predictability
- Routine
- Relationships & connection
- Space & time
- Love & care
- Humour & fun
- Appropriate modelling
- Forgiveness (self & others)
- Boundaries (self, others, community, family)
- Very much the long game

Curriculum 'Same, same but different'

Business Services	Careers	Child Studies
Construction	Distance Education	English
History	Mathematics	Music
Personal Training	Psychology	PDHPE
Science (no lab)	Sport Leisure & Recreation	VET
Visual Arts	Wellbeing	Wood & Metal Work

Non ATAR-HSC
Some Life-Skills



Additional Subjects- Wednesday Electives



- Ceramics
- Crochet
- Music Mixing
- Make up and Hair styling
- 3D Laser Printing
- Boat Licence
- Photoshop
- Equine Therapy
- Beekeeping
- Candle Making
- Cooking
- Drivers License
- Biking
- Sailing
- Hiking/Bird Watching
- Build It Crew



Theoretical Background

- “When young people have the opportunity to explore new terrains, they develop the skills they need to become contributing adults” (FrameWorks Institute, 2020, p.3)
- “Supporting strong relationships with teachers (staff) is one way to increase the high school graduation rate, which in turn builds a stronger workforce and a more robust economy”
(FrameWorks Institute, 2020, p. 4)
- “Shared tasks help group bonding, but natural surroundings play a part too because people connect more easily when they are in nature together” (Stuart-Smith, 2020, p.36).
- Promotion of opportunity and reduction of risk taking.

Garden Therapy Theory

- Working with plants becomes a soft and safe way to learn about care & tenderness. (Stuart-Smith, 2020, p.53)
- Digging in the soil can increase serotonin levels.
- Planting plants promotes optimism & hope for the future.
- “Caring for plants gives people a different attitude to life. They start to value it”. (Stuart-Smith, 2020, p.62)
- “are particularly effective at bringing the body to a relaxed physiological state”. (Stuart-Smith, 2020, p.73)



What is Build it Crew?

BIC is a Wednesday morning elective option for our students, in which they have the opportunity to take ownership in the design, beautification and construction of The Beach School's gardens, seating areas, animal enclosures and natural environment.



What is the Purpose of Build It Crew?

The purpose of BIC to have staff/students actively involved in the structural improvement and beautification of the school grounds, utilizing the principles of:

- Teamwork
 - Design
- Hands-on tool use
- Problem-solving
 - Initiative
- Sustainability



Promoting positive mental health through “doing”

The Build It Crew Vision

The BIC vision is to provide students with a safe and supportive space to actively contribute to the physical environment of the school whilst learning skills associated with teamwork, tradework confidence building & self-reflection.

This vision allows for students to develop personal pride, be a part of an ongoing legacy and give back to their local community fostering a sense of belonging.



Why do students engage with Build It Crew?

As with all our electives, it is the student's choice to be part of the BIC team.

- They want to work in a team environment.
- They like student led projects and opportunities for leadership.
- They see similarities with their own hobbies and interests.
- They may be interested in taking on a trade and the tools used in construction of the BIC project can assist with this.
- They have a strong connection with a BIC staff member.
- They are students who prefer to work outdoors.
- They want to help out and care for the schools animals and/or plants.
- They are students who like regular movement & prefer not to sit inside.
- They simply like the BBQ at the end of the session.

How are projects chosen?

The following considerations are taken when deciding upon projects:

- Costs, including availability of grants
- The school's current and future needs
- Time and staffing
- Student interest
- Student & staff imagination
- Approval from ASSETS
- Variety of skills achievable
- Work, Health and Safety



Projects to date include . . .



Entry Garden - Insect Friendly Rain Garden

Time Frame: 3 terms

Staff: 12

Students: 10 + Bushlink crew

Bushlink: 2 supervisors, 8 crew.

Community Support:

Kimbriki Resource Recovery Centre

Bush to Bowl Indigenous Nursery.

Australian Native Landscapes



Entry Garden- Insect Friendly Rain Garden



Tools used: Paint brushes, shovels, mattocks, crowbars, levels, wheelbarrows, assorted gardening tools

Primary Products: Mixture of native & introduced plants, river sand, crushed concrete, steel edging, existing timber bridge, tamper, gardening tools, Eucy Mulch, Sandstone rocks and boulders.

Koi Pond – Past Project

Time Frame: 1 term

Staff: 2 teachers, 2 SLSO's

Students: 33

Community Support:

Fishworks, Ace Landscape,
Manly Aquariums.



Koi Pond – Past Project



Tools used: Drills, hand & power saws, spanner, paint brushes, shovels, concrete, tile cutters, grout float, grouting sponge

Primary products: Resin bonded plywood, concrete, liquid nails, student made tiles, river pebbles, aquatic plants, bush rock, Pond Lining.

Sensory Jungle Aviary – Current Project

Time Frame: 4 terms

Staff: 3 teachers, 2 SLSO, Exec,
School Counsellor, GA

Students: 18

Bushlink: 1 supervisor, 4 Crew

Community Support:

Kimbriki Resource Centre.

Growing Trend Horticultural
Services

Nothing but Pots Nursery

Taronga Zoo



Sensory Jungle Aviary – Current Project



Tools used: welding gear, drills, drivers, shovels, mattock, Saws, post hole digger, level & wheelbarrow, assorted gardening tools, paint brushes

Primary products: steel, finch mesh, railway sleepers, Bird netting, sandstone rocks, native ferns, large trees, mix leaf mulch, cypress timber.

Pygmy Goat Night House- Current Project

- Time Frame: 2 terms
- Staff: 2 Teachers, 2 SLSOs, Business Manager.
- Students: 12
- Bushlink: 2 supervisors, 8 crew.
- Community Support:
Taronga Zoo, Local neighbours,
Australian Native Landscapes.



Pygmy Goat Night House- Current Project

- Time Frame: 2 terms
- Staff: 2 Teachers, 2 SLSOs, Business Manager.
- Students: 12
- Bushlink: 2 supervisors, 8 crew.
- Community Support

Taronga Zoo, Local neighbours,
Australian Native Landscapes,
Goat breeder Sutton Forest.



Pygmy Goat Night House- Current Project



- **Tools used:** Drills, drivers hand & power saws, hammer & nails, spanner, paint brushes, shovels, rakes, wheelbarrows & concreting tools.
- **Primary products:** Cedar shed (pre-made), organoil stain, recycled bricks, Paving sand, recycled road base.

Pygmy Goat Night House- Current Project



- **Tools used:** Drills, drivers hand & power saws, hammer & nails, spanner, paint brushes, shovels, rakes, wheelbarrows & concreting tools.
- **Primary products:** Cedar shed (pre-made), organoil stain, recycled bricks, Paving sand, recycled road base.

The Build it Crew Schedule

Time	Activity
08:00 – 08:30	Preparation
08:30 – 08:45	BBQ preparation
09:00 – 09:10	Toolbox Talk & allocation of duties
09:10 – 10:15	Projects
10:15 – 10:45	Recess • Students with friends • Staff secure tools & equipment
10:45 – 11:40	Projects
11:20 – 11:40	Cooking BBQ
11:40 – 11:50	BBQ consumption
11:50 – 12:00	Crew debrief & Silver Hammer
12:00	Students depart
12:00 – 13:00	Correcting some student work, completion of days' projects & packing up equipment



How are students allocated to a specific project?

- Students may select a project or project job of interest.
- Staff may allocate students depending upon student dynamics– divide and conquer.
- A student's mood or experience during the previous week may align them better with a staff member.
- The skill level of the student and prior background knowledge and previous work on the project.



Challenges to the program (The Pitfalls)

- Not every student buys into the program, they have to be willing and ready...This can take time. Do not Rush.

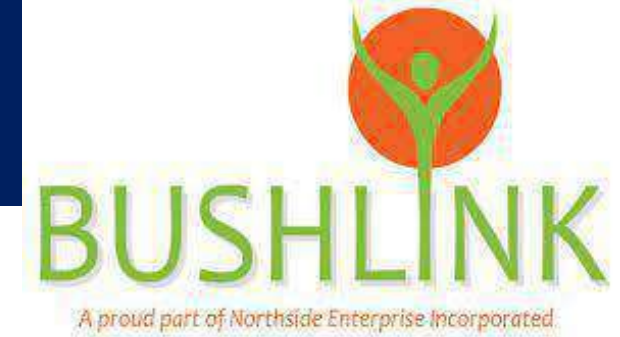


Challenges to the program (The Pitfalls)

- Some students mistake our kindness for easiness & will try and take advantage of us (slacking off).
- Outside influences on attendance can be stronger than our influence.
- Funding and time constraints.
- Weather challenges.
- Physical challenges.



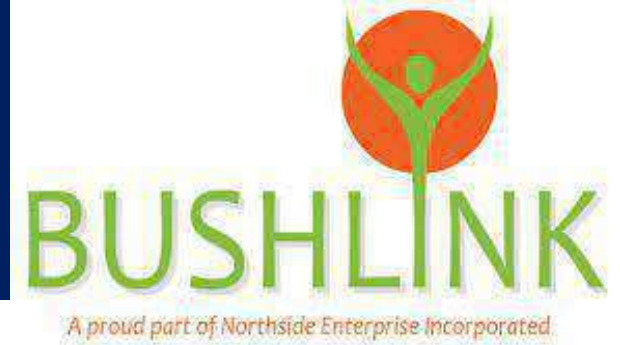
TBS & Bushlink Partnership



- Development and promotion of social empathy from TBS students.
- Transference of skills from Bushlink ↔ TBS students.



TBS & Bushlink Partnership



- Development and promotion of social empathy from TBS students.
- Transference of skills from Bushlink ↔ TBS students.
- Development of TBS student leadership skills.
- Provide valuable **physical** and **positive** energy to a project.



Limited Space, Soil or Sunlight (Is it a Pitfall?)

SPACEMAX Principles

Soil build under shallow rooted plants

Pots and container gardening

Aerial gardening- growing food in hanging baskets and wall gardens

Corners – making use of microclimates

Edge habitats- using neglected edges

Multiple use of space

Aquaponic gardens and Aquascaping

Xerox gardening (design backwards)



Cultural, Atmospheric & Ambient Outcomes

- The “wow” factor when visitors and potential students and parents first see the space, “this is an educational oasis”.
- Changing the perception of the students’ & parents’ understanding of how a school can look & feel.
- Reduction of hostile sounds & noises to sounds of nature, gentle chatter, laughter & cohesion.
- Community Investment & Partnership.



Environmental Outcomes

- Creation of new biodiverse ecosystems.
- Observed increase in native bees, dragonflies, insects, lizards & frogs.
- Use of **permaculture design principles** has improved school's sustainability and efficiency of garden maintenance.
- Generation of new soil through composting has eliminated food waste entering landfill.
- Reduction in urban heat effect with creation of more shade.
- Efficient use of water run off with the use of rain garden design.



Cross-curricular Learning Outcomes

- Development of eco-literacy.
- Scientific knowledge development such as life cycles of plants, wildlife, fish, insects, and soil micro-organisms.
- Literacy skills improved through reading, comprehending & following instructions with tools, DIY projects & plans.
- Numeracy skills improved through measuring, volume, recording, addition, subtraction, multiplication & division.
- Expressive & receptive language skills improved through debriefing with listening, turn taking & public speaking skills.

Employment Outcomes



- Teamwork
- Problem solving
- Project management & leadership
- Short & long-term goal setting



- Use of specific tools & skills e.g. welding, lawn laying
- Specific experience to be used in employment & TAFE interviews, resume building & Ability Options

Psycho-social outcomes

- Creation of quiet natural places for self-regulation, calming & reflection
- Promotion of mutual respect & pride among students
- Chance for incidental conversations (planned & unplanned), side by side with staff & students
- Soft entry for the positive aspects of mental health development
- Social prescribing –students having safe & healthy fun
- Development of friendships





Any Questions?

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**BELONG
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A place to be you