2014 ABORIGINAL STUDIES CONFERENCE

THE 8 ABORIGINAL WAYS OF LEARNING

CONCORD HIGH SCHOOL
School Context

Rita Karaminas-Gilbert
Concord HS

- Inner West of Sydney
- Comprehensive, co-ed
- 2 boys for every girl
- Multicultural, largely Chinese, Korean. Increasingly Arabic.
- Disparate enrolment mix
- Mental health issues
- 70 teaching staff of mixed ages and experience
- Very small Aboriginal enrolment
Changing Aboriginal enrolment profile

BEFORE, 2013
10 ATSI students

AFTER, 2014
21 ATSI students

Including: 8 Year 7 students. 50% out of area applications.
How it all started...

Rita Karaminas
HT Administration Young HS
8 Ways Science Project

Tim Sloane

Head Teacher Science
The 8 Aboriginal Ways of Learning Pedagogy

The 8 Aboriginal Ways of Learning is a pedagogy framework that allows teachers to include Aboriginal perspectives by using Aboriginal learning techniques. Teaching through Aboriginal processes and protocols, not just Aboriginal content validates and teaches through Aboriginal culture and may enhance the learning for all students.
Context:
Living things are all around us. Some we can see, others we cannot with the naked eye. As technologies have improved so has our understanding of this microscopic world and the significant role they play in maintaining the world as we know. All living things no matter their size carry out seven key processes: movement, respiration, sensory, growth, reproduction, excretion and nutrition (MRS GREEN). What will vary between organisms is the way in which they perform each of these necessary life processes. This unit of work will explore different life forms, their life processes and the way in which human ingenuity has helped to develop technologies that improve our understanding of the biological world. As new technologies have developed new species have been discovered and our understanding of relationships between organisms changes. Within this context, students will be provided with opportunities to learn about Aboriginal and Torres Strait Islander peoples have developed and refined knowledge about the world through observation and responding to environmental factors. Specific examples will be explored, to highlight how Aboriginal and Torres Strait Islander peoples' understanding of the environment is complementary to western scientific knowledge. This Aboriginal pedagogy framework is expressed as eight interconnected pedagogies involving narrative-driven learning, visualised learning processes, hands-on reflective techniques, use of symbols/metaphors, land-based learning, indirect/synergistic logic, modelled/scaffolded genre mastery, and connectedness to community. As part of the initiative it is hoped that students will be involved in the design and construction of a 'living classroom' and 'bush garden' on school grounds.

see: http://8ways.wikispaces.com/

KEY to 8 Aboriginal Ways of Learning:
LL: Land Links  NL: Non-Linear  DR: Deconstruct/Reconstruct  CL: Community Links

Outcomes:
A student:
- SC4-14LW: relates the structure and function of living things to their classification, survival and reproduction
- SC4-15LW: explains how new biological evidence changes people's understanding of the world

Applications:
- Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
- Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management

Science Understanding
- LW1 There are differences within and between groups of organisms; classification helps organise this diversity. (ACSSU111)
- LW5 Science and technology contribute to finding solutions to conserving and managing sustainable ecosystems.
LW1 There are differences within and between groups of organisms; classification helps organise this diversity. (ACSSU111)

4LW1a. identify reasons for classifying living things

DR: Mind Map
- Human need for order
- Communication across the world
- Common language (Binomial naming)
- Show relationships between organisms
- Aboriginal perspective: why did they use bush tucker food -medicinal -crafts -ritual

SCIENCE FOCUS 1 & 2
KISS BOOKLETS: Life, Life Systems, Cells, Ecosystems
classify a variety of living things based on similarities and differences in structural features

• classification activities - eg. students given a range of organisms by name and asked to group them based on similarities and differences in structural features
• use structural features of students to develop a key of the class (ensure ONLY appropriate features are chosen)

Research task:
A4 page identifying the classification of your favourite plant/animal and explain what features put it is in those groups eg
http://www.factmonster.com/ipka/A0776195.html

**CL:**
Royal Botanic Garden - Plant list of endemic and

**CL/LL:**
Guest speaker (TBA - see Rita): Aboriginal ties to region

**CL:**
Strathfield and Marrickville council garden. Native/bush tucker garden
<table>
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<tr>
<th>4LW1c. use simple keys to identify a range of plants and animals</th>
<th>Dichotomous key worksheets</th>
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<td>SI, LL: Make up cards for local Native/bush tucker garden and other endemic species vs introduced found on school grounds</td>
<td>Scientific names</td>
<td>KISS BOOKLETS: Life, Life Systems, Cells, Ecosystems</td>
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<td>Indigenous info/uses</td>
<td>Symbols on cards</td>
<td>Native garden booklet-supplied by Royal Botanic Garden</td>
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LW5 Science and technology contribute to finding solutions to conserving and managing sustainable ecosystems.

4LW5a. construct and interpret food chains and food webs, including examples from Australian ecosystems

Define food chain and food web

Define autotroph, heterotroph, decomposer, producer and consumer organism

LL: Construct a range of food chains of increasing complexity. Include Australian examples that have species from the Bush tucker garden

Construct a range of food webs of increasing complexity. Include Australian examples from Native garden booklet- supplied by Royal Botanic Garden.

Extension activity- Class discussion:

- What happened to Aboriginal community when food chain was broken.
- Impact of introduced species
- Stolen generation- Impact from loss of knowledge being passed onto next generation

SCIENCE FOCUS 1 & 2

KISS BOOKLETS: Life, Life Systems, Cells, Ecosystems
The 8 Aboriginal Ways of Learning Pedagogy

- **Story sharing** - Yarning circle part of bush tucker garden design
- **Learning Maps** - Class mind maps of Aboriginal versus Western use of land
- **Symbols and Images** - Research and construct identification cards for plants
- **Land Links** - Identification cards contain information attaining to Aboriginal use of the plant
- **Community Links**
  - Jacqueline Koob and Rita Karaminas - Aboriginal students and their parents
  - Phytos Ektoros and Mel Ozanne - Iqbal Singh and Year 7 Science 6
  - P&C funding - Canada Bay and Marrickville Council
  - Media class - National Botanic Gardens
Botanical Cards

- Over 120 plants so far
- Approximately 40 species of bird attracting and/or bush tucker plants

**Scientific Name:** *Hakea sericea*

**Common Name:** Silky Hakea

**Description:** The shrub is usually 2-3m tall and the leaves are rigid and 6cm long, 1mm wide. The delicate pale flowers, usually white but ranging from pale yellow to a ting of pink.

**Aboriginal and other uses:** When the seed pods dry and open, they were used by settlers as clothes pegs! Some hakea have large, nectar rich flowers which can be sucked, or soaked in water, for a sweet drink.
Scientific name: *Elaeocarpus reticulatus*
Common Name: Blueberry Ash

**Description:** large shrub or tree which can grow to a height of 30m. Its most conspicuous features are white or pink cup-shaped flowers with fringed edges and round blue fruits. Blueberry Ash also has leaves which turn bright red as they get older.

**Aboriginal uses:** The small fruits of this shrub, 5mm in diameter, contain a large seed. When the seed is firm it is astringent and unpleasant to eat; as the seed softens the fruit develops a floury taste. The most flavoursome fruits are wrinkled and hang from the underside of the tree limbs. If the fruit is bright blue it can be eaten raw. This plant can be found in abundance. The best time to look for fruit is between May and October.
As of 2015- All year 7 programs to include this additional content
- Review other year groups teaching programs and add similar content where appropriate
- Add to, and enhance the garden
- Use the class room
8 Ways English Project

Angelina Iconimou
English Teacher
Aboriginal perspectives are not found only in Aboriginal content, but Aboriginal processes ...
KEY to 8 Aboriginal Ways of Learning

**SS:** Story sharing

**LM:** Learning Maps

**NV:** Non-Verbal

**SI:** Symbols and Images

**LL:** Land Links

**NL:** Non-Linear

**DR:** Deconstruct/Reconstruct

**CL:** Community Links
Project Plan/Unit Overview

- **Title of the initiative of Aboriginal Project**: Diving into Poetry
- **Stage/Year**: Stage 4 Year 7
- **Outcomes**: By focusing on teaching pedagogy through the 8 Ways of Aboriginal Learning, students engaged in storytelling, created learning maps, acquired non-verbal awareness, understood symbols and images, established community links, land links and deconstructed/reconstructed texts through a nonlinear form of learning. The project allowed students to explore meaningful texts in a collaborative environment. Students reviewed, examined and analysed a range of poetry. Students involved in the project provided a reflection on their learning and a synthesis of their thoughts and ideas about the project.
Learning Maps

My Personal Poetry Learning Map

ESRA VALENCIO

Symbols:
- Non-Verbal
- Visual
- Kinesthetic
- Auditory
- Read/Write
- Logical

Activity:
- Recounts a poem
- Recounts a dream

Learning Map

Learning Map

Learning Mapping

Doomed to All Pirates

POETRY

POETRY

Community Links -
- In small groups, create a poem-
- Write a poem-
- Recount a dream

Non-Verbal
- Non-Verbal
- Non-Literacy

Learning Map

Learning Map

Learning Mapping

Doomed to All Pirates

POETRY

POETRY
Outdoor Lessons – Land Links
Guest Visit

TERRY LOCKLEY COMMUNITY LINKS
Guest Visit
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Guest Visit
TERRY LOCKLEY COMMUNITY LINKS
Question time...

Any questions or comments?