

Wangai/Ngalia Connections
TO BE TAUGHT BY OR WITH Wangai or Ngalia people

- Traditional language, songs and stories about living things, places and travel
- Mamutjitji Dreaming story, song and dance
- Honey Ants- skills for locating and collecting honey ants
- Other invertebrates- digging for Luncki / bardi
- Country where the Mamutjitji lives

Language / Literacy Focus

INFORMATIVE TEXT

- Recount- trip on Country
- Scientific report- Pi traps
- Procedure- digging honey ants
- Life cycle diagram
- Using ID guide
- Names of different invertebrates
- Living/non-living classifications
- Brainstorm
- Data recording
- Objective language
- Word walls
- Blog- class writes a facebook post for the school

Scientific language-

- Invertebrates, habitat, abundance, diversity, carapace, abdomen
- Wangai name, common name scientific name
- Latin prefix

CREATIVE / IMAGINATIVE TEXT

- Storyboard an animated version of the Mamutjitji book
- Read the Mamutjitji book- sequencing activity

Connection to Health & PE:

- Mamutjitji story- resilience and overcoming adversity
- Response to recent mental health, suicide issues
- Make a mamutjitji fitness game- mamu in the middle trap or tag players

Digital Technologies / IT

- Data collection and representation
- Questagame biodiversity recording app (gamification) to log invertebrate sightings
- Biocollect sight for logging data
- iPads to create eBooks and prompt recounts
- Photograph and media (Big Picture focus)
- Production of media and photographic stories
- Time lapse video of antlion nest creation
- Class writes a facebook post for the school

Whole of School Two-way Science Planner 2018
LEONORA DISTRICT HIGH SCHOOL

The Big Idea

Mamutjitji dreaming story and invertebrate investigation
Living things exist together in systems (ecology, biodiversity and social/cultural systems)

BIOLOGICAL SCIENCES

- PP Living things have basic needs, including food and water ACSSU002
- Y1 Living things have a variety of external features ACSSU017
- Y1 Living things live in different places where their needs are met ACSSU211
- Y2 Living things have a variety of external features ACSSU017
- Y3 Living things can be grouped on the basis of observable features ACSSU044
- Y4 Living things have life cycles ACSSU072
- Y4 Living things depend on each other and the environment to survive ACSSU073
- Y5 Living things have structural features and adaptations that help them to survive in their environment ACSSU043
- Y6 The growth and survival of living things are affected by physical conditions of their environment ACSSU094

CHEMICAL SCIENCES

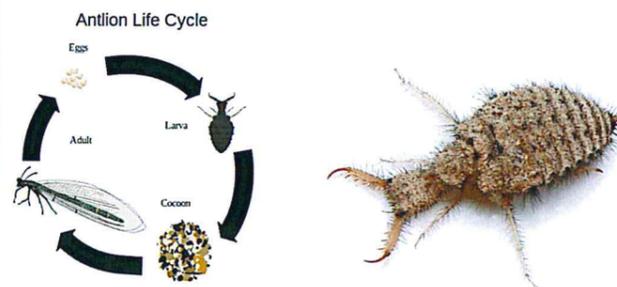
- Y1 Objects are made of materials that have observable properties ACSSU003
- Y2 Everyday materials can be physically changed in a variety of ways ACSSU018
- Y3 Different materials can be combined for a particular purpose ACSSU031
- Y4 Natural and processed materials have a range of physical properties that can influence their use ACSSU074
- All Science Inquiry Skills

STEM: Science Pathways Two-way Science links and activities

Mamutjitji

The Mamutjitji is also known as the Antlion, the larval form of the lacewing fly. The Mamutjitji has a Dreaming story about a group of children who overcame their fears by beating down monsters that were chasing them. The story is considered safe to use in a public context. This project will incorporate themes of resilience and overcoming adversity.

Starting with the Mamutjiti, students will learn about its life cycle, environment and feeding habits. They will connect the ant lion trap to the use of pit traps and use these to assess ground invertebrate biodiversity in different habitats. Students will connect the study of invertebrates to traditional practices of collecting honey ants and bardi grubs.



Links and resources

Science Pathways Draft resources:

- Pit traps as a model for ant lion capture of prey
- Classifying insects
- Insect anatomy
- Linking the pit trap survey to habitat/ ecosystem comparisons eg compare pit traps at school with Malcolm Dam

Keeping antlions in captivity <http://members.ozemail.com.au/~macinnis/scifun/live.htm#antlions>

Comprehensive antlion info and videos <http://www.antlionpit.com/antlions.html>

Other science curriculum links:

Physics- the ant lion trap ensures the prey falls to the bottom but avoids avalanche or the sand into the trap- how does this work? Create models using different substances to test friction and resistance of different materials on a slope- can be differentiated

Chemistry- the ant lion separates materials to create the slippery slope for ants, creates a cocoon from small rock for pupa protection.

WACE / Senior Pathways

Two-way Language

- Fifi provide Two-way Language program focus here
- Kado- Ngalia language mobile application
- Create language packs for each class of common words to this project for use in literacy activities

Endorsed Program: Bush Rangers

- Align to bushrangers units

Cross Curriculum

ATSI Histories and Cultures Organising Ideas

Country OI 3 Aboriginal and Torres Strait Islander Peoples have holistic belief systems and are spiritually and intellectually connected to the land, sea, sky and waterways.

Culture OI 5 Aboriginal and Torres Strait Islander Peoples' ways of life are uniquely expressed through ways of being, knowing, thinking and doing.

Numeracy

- Data collection and graphing
- Bush Trip Planning: How much water is needed by the group: count up, learn about measuring in litres (volume).
- Explore area of land for sampling.
- Weather readings: collate and graph.
- Measure traps using tape measure

The Arts

- Make Mamutjitji puppets and perform
- Assembly item to explain life cycle of the mamutjitji.
- Mamutjitji song
- Pictures and models for ecogram

Learning on Country

- Collection of Mamutjitji for captive observation
- Field trip to Malcolm Dam- ant lion habitat
- Science Inquiry Invertebrate survey
- Digging for Honey Ants, Bardi