



Life on Land, Life below Water:

Why It Matters

Purposeful Pedagogies: Global Competencies In Action #PurposefulPedagogies



Association of Independent Schools of Western Australia



The AISWA Reconciliation Action Plan Artwork: Djilba Springtime - Jenny Knapp

Acknowledgment of Country

AISWA would like to acknowledge that the land we work on is Whadjuk Noongar boodja and that the Whadjuk Noongar people are the traditional owners and custodians who have a rich social, spiritual and historical connection to this country which is as strong today as it was in the past.

The AISWA offices are situated near Herdsman Lake, which is traditionally called Ngurgenboro. Djilba season is part of the Noongar six seasons and is reflected in the AISWA Reconciliation artwork (above). The artwork story is of Djilba springtime season, when the bilya waterways and lakes are full and djet wildflowers are in bloom, creating the colours of land on Noongar boodja country.



Noongar Elder Neville Collard at Herdsman Lake Discovery Centre, Bunuru 2022

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Project Description

This resource originated as an exciting interdisciplinary Professional Learning experience for six AISWA schools to design a socially purposeful project, exploring a real world environmental issue based on Sustainable Development Goals #14 and #15. Teachers demonstrated professional growth by documenting their teaching and learning journey, and students produced an art exhibition and digital product to connect with others and share their actions. In doing so, both teachers and students demonstrated Global Competencies such as Creative and Critical thinking, Ethical Understanding, and ICT capabilities.

This teaching and learning resource is suitable for teachers of all levels of experience from a range of subject areas. It provides a series of case studies showcasing a Project Based Learning (PBL) inquiry approach by students from Year 2 to Year 6, as told by the teachers and students involved.





Maree Whiteley Click for Blog

Click for student exhibition video Follow our learning journey via Teacher blogs by clicking on their photos throughout this resource





Blue Gum Montessori School

In this inquiry, Year 4, Year 5 and Year 6 students worked collaboratively to investigate the health of our local rivers and wetlands. The overarching focuses were the Sustainable Development Goals of Life on Land (15) and Life below Water (14). The students used a range of thinking routines to develop questions enabling them to analyse different perspectives on river and wetland health.

Students have worked closely with experts such as an Environmental Health Officer, an Environmental Education Officer, and local Greens activists. The students have shared their learning in the form of a collage showing the beauty of the Bibra Lake wetlands and a stop motion animation video, raising awareness of the dangers of high levels of bacteria in the waterways.

Students have also taken action to improve a current 'standard health and recreational warning sign' by redesigning it and writing a letter to the Department of Health WA. Students are continuing to work on innovative ideas to improve areas of individual interest on the topic "how might we improve the health of our local rivers and wetlands?"



How might we improve the health of our local rivers and wetlands?





Hale School

The objective of our project was to provide each learner with the opportunity to explore the Design Thinking Model using HASS, Science, Art and Literature as the stimulus for our inquiry.

Integral to the Purposeful Pedagogies project was the connection students would make with the Global Goals and their personal actions resulting from the process.

Additionally, the project was differentiated across our three Year 6 classes with art being the 'glue' that tied their inquiries together. Each class examined a different aspect that contained a focus of interest to those students.

The process of their unfolding inquiry was recorded using multiple online and inquiry-based techniques for the students to comment. reflect and curate ideas.

At Hale the students have a duty to help the world to become a better place, and indeed it forms the school motto, 'Duty'.

This project enabled the students to take real world action on a local level. Throughout the project the students were presented with opportunities to use their heads to think, their hearts to hope and their hands to take action.







Moerlina School

The Year 2 and Year 3 children began the journey into phenomenon based inquiry by visiting and exploring the ecosystem at Lake Claremont. They packed binoculars, magnifying glasses, bird and small marsupial encyclopedia books and their nature journals for a day out at the lake.

They were very excited as they had heard that a few quendas had been relocated and released at Lake Claremont, and they were desperate to spot these little creatures and named this excursion the "Quenda Quest".

After the trip they passionately explored these ideas: what do we care about (and if we could), what would we change in our community and in the world? This was another important starting point for the class inquiry to determine their interests for the learning process. The class wanted to change the world and take action on something important to them. These ideas were categorised and connected with the Global Goal, #15 Life on Land.

Through this phenomenon-based inquiry process the goal was to deeply learn, understand and encourage change, by creating awareness of the real life of the quenda. Students gathered lots of information by researching and investigating their local ecosystem, questioning and talking to quenda experts from Friends of Lake Claremont and Terrestrial Ecosystems WA. Armed with all this new knowledge, they wanted to read more about the quenda from picture books however, they couldn't find ANY! They read heaps of books on other related marsupial species, but no picture books about our local quenda. They were baffled about this! Why is the quenda such an underrated animal? They were empowered to become authors and illustrators, and as a class they came up with an idea to write a picture book about the quenda. We hope you enjoy our story.



How might we help the quenda population of Perth?





Presbyterian Ladies' College

We used Kath Murdoch's 'Inquiry Cycle' to guide and propel the teaching and learning. The project was infused with global goals and capitalised on student centered learning, collaboration, questioning, inquiry and action. This process was truly transdisciplinary, drawing on the expertise of a range of people from school and outside the classroom.

Excursions to the local environment at Freshwater Bay and Point Walter generated a great deal of interest and empathy towards local wildlife. Students investigated the impact of substances on algae growth; sorted and analysed rubbish and interviewed local experts. They carried out surveys to find out about native insects and birds in our school garden. One conclusion they made was that there was a lack of native plants and animals in the school garden.

They decided to take action to create a special dedicated area for native animals to thrive in. Students conducted research to find out about insects and birds they wanted to attract to the garden and created information posters in the space. They examined the plants needed to attract different species. In Art, students created insect and bird houses to energise the space.

While still in the process of establishing the garden, it is hoped that the students' action will result in a place to learn, relax and wonder for many years at PLC. This is an ongoing project that will require effort and empathy to sustain it. We hope to develop habits of mind in our students leading to life-long practices, that create a better future for all living things.

6 CLEAN WATER AND SANITATION 1 NO POVERTY 3 GOOD HEALTH AND WELL-BEING -4/**•** Ň**ŧ**ŧŔ





Santa Maria College

Our inquiry project began by exploring what living things need to grow and survive. We visited Swan River foreshore areas nearby to our school and students conducted observations of the environment, using all of their senses to mind-map their surroundings. They looked for things that seemed out of place, identified possible problems for the sustainability of living things, noticed what human activities were happening around them, and looked to identify evidence of sustainable actions already being implemented. Students were also asked to take up a position along the foreshore for quiet reflection, considering whether their view had always looked this way.

Following our excursion, students developed broader questions about what they had observed. Many were deeply concerned by the amount of litter they found, while others also felt some of the human activities could be overwhelming the environment such as boating and fishing. They began to research plant and animal species of the area and identify threats to their survival. Students eventually developed their own 'big question' from the overarching idea, specific to helping a species of their choice thrive in its environment.

During this project, students became experts about their species and worked to understand the problems facing them from multiple angles. They then began to develop possible solutions to these problems, considering their audience and purpose. They created websites, advertising and awareness campaigns, children's books, boardgames, animations and more!





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St Mary's Anglican Girls' School

This inquiry shines a light on starting local, going global. We have focused on the Sustainable Development Goal 15, 'Life on Land', specifically Target 15.1 "to conserve and restore terrestrial and freshwater ecosystems" Year 6 students were keen to learn about local wetlands and biodiversity with a view to enacting positive change. Using Ron Ritchhart's 'Visible Thinking Tools', we embarked on a project to investigate and draft solutions to the many biological challenges that Herdsman Lake faces.

We used the 'Design Thinking Process' and Kath Murdoch's 'Inquiry Process' to guide the structure of our project. Students gained empathy for the world around them and confidence in their ability to enact change through contacting politicians, ecologists, water management specialists, local councilors, game developers and PhD students.

Students have developed their global competencies and self-reflected on Kath Murdoch's 'Learning Assets' throughout the project; in particular collaboration, contribution and researching. They have enthusiastically studied and become 'Solutionaries' across many topics from their research. They were most passionate about: invasive species, lack of trees, algal blooms, pet control, littering and human interactions with the environment. This inquiry has interconnected Literacy, Science, History, Geography, Art, Digital Technologies and Outdoor Education. Students are showing their learning using a plethora of presentation formats, which they were excited to exhibit at the Herdsman Lake Discovery Centre.



How might we improve the biodiversity in our local environment?



Learning Outcomes

Participating teachers will model Global Competencies and create a project that:

· supports the implementation of the Western Australian Curriculum and the broader outcomes of the Australian Curriculum and the Alice Springs (Mparntwe) Declaration.

Goal 2: All young Australians become confident and creative individuals, successful lifelong learners, and active and informed members of the community

- follows a Project-Based Learning or Problem-Based Learning (PBL) approach.
- demonstrates a sustainable teaching and learning process, using the United Nations Sustainable Development Goals.
- creates an exhibition display to be shared with the wider community, featuring the voices of children and young people, based on a local, global issue.

AITSL National Professional Teaching Standards for Teachers

Standards addressed directly in this professional learning:

- 1.1 Physical, social and intellectual development and characteristics of students
- 2.1 Content and teaching strategies of the learning area
- 2.6 Information and Communication Technologies (ICT)
- Establish challenging learning goals 3.1
- 3.4 Select and use resources
- 6.2 Engage in professional learning and improve practice
- Apply professional learning and improve student learning 6.4
- 7.4 Engage with professional teaching networks and broader communities



Action Learning Program

At the end of 2021, classroom teachers from AISWA Member schools were invited to participate in an Action Learning Project called Life on Land, Life on Water - Why It Matters. The application form called for 'Creative and critical thinkers who were looking to expand their professional and personal learning skills with like-minded educators, who were willing to document their learning, and walk alongside their students through the design-thinking process."

This flexible, personalised Professional Learning program comprised of webinars, face-face workshops, professional reading, and incidental learning by connecting and collaborating via personal blogs and social media, building a Professional Learning Community (PLC) within the group, and beyond.

Successful applicants each received the following texts, included in the resource pack distributed at Workshop 1:

- Alice Springs (Mparntwe) Education Declaration (2019)
- · Rescuing Ladybugs: Inspirational Encounters with Animals That Changed the World by Jennifer Skiff (2018)
- The World Becomes What We Teach: Educating a Generation of Solutionaries by Zoe Weil (2021)
- Worldwise Learning: A Teacher's Guide to Shaping a Just, Sustainable Future by Carla Marschall & Elizabeth O. Crawford (2021)

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This publication, Purposeful Pedagogies: Global Competencies in Action, provides a valuable illustration of quality, socially purposeful teaching and learning, exploring real-world issues. Each project demonstrates how several aspects of the Australian Curriculum can be implemented by creating authentic, student-driven Project-Based Learning

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