Curriculum Resource

FOR SCIENCE, HEALTH AND PE



I'd like to make that!

Enhancing & restoring the natural habitats of vulnerable species

Resource Description

YEAR LEVEL: YEARS 5 AND 6



This is a unit with five inquiry teaching sequences about involving students in the process of developing and improving your school's focus on vulnerable and at risk species within your region.

- It includes sections on how to identify and explore extinct, endangered and vulnerable habitats within the local region and the importance of protecting them.
- The unit encourages students to raise questions, gather and process data, make conclusions and take action.
- A feature of the unit of work is that it involves students in a variety of learning areas or subjects as they work through their sustainability investigation action process.
- By nature, the process of the sustainability action process involves students in continuous reflection of their learning. As the students move through the sustainability action process, they revisit questions asked, statements made, opinions asserted. Students will find that their ideas may shift as they work through activities and that the ideas they began with may be challenged or refined.



ACKNOWLEDGEMENTS

This Junior Landcare educational resource has been developed by teachers with support from Landcare Australia and the Primary Industries Education Foundation (PIEF).

The resource is designed to introduce young people to the concerns for vulnerable species across the world, particularly in Australia and more specifically, in their local area or region, and how they may be actively involved in helping to protect these species.

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The materials in this educational resource have been provided by Waikerie Primary School and its Youth Environment Team (YET), with the invaluable support of its main community partner Riverland West Landcare (RWI andcare) in South Australia

Waikerie Primary School is situated 179km north-east of Adelaide, South Australia in the rural area known as the Riverland. Its Youth Environment Team began in 2005 as an environmental youth leadership group. The team consists of 12 members, from year 6/7 who have successfully applied and been chosen as school leaders and ambassadors for sustainability in the school and wider community. The team is actively involved in enhancing habitats and reducing the decline of the Regent Parrot - a vulnerable species in the region - and there are signs of an increase in Regent Parrot sightings

Details on the work of the YET team, which lead its State in the Junior category and was Highly Commended in the 2014 National Landcare Awards, is via <u>landcareonline.com</u>. au/2014nationalawards

Step One Engage with the topic

Objective: To identify and explore extinct, endangered, vulnerable and at risk species within the local area or region.



There are many resources available online and within the community, to access information and presentations that will engage students, teachers and the school community.

See the outlined strategy undertaken by Waikerie Primary School below.





1. INITIAL SEARCH

Students were initially asked to search the 'world wide web' and research extinct, endangered, vulnerable and at risk species, in order to get them engaged on the topic.







3. CONNECTING WITH LAPS (LOCAL ACTION PLANNING)

landcareaustralia.com.au).

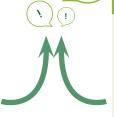
Waikerie Primary School also engaged with the Local Action Planning (LAP) group and Landcare group for more information (Landcare and related groups can be searched for online via the National Landcare Directory at www.nld.

The LAP Project Officer was able to provide additional local information, contacts and relevant guest speakers to come to the school.

2. CONNECTING WITH NRMs (NATURAL RESOURCE MANAGEMENT)

The school also connected with the local Natural Resource Management (NRM) office and utilised their teacher website. Connecting with their local NRM Education Coordinator provided support and an abundant source of knowledge for the teachers to share with their students.

(See References/Partners sections).



Step Two Explore the topic

Objective: Narrow your focus to a specific species of interest or concern in your area.



With the support of the online and human resources discovered in Step 1, you may now narrow your focus to a specific species of interest or concern in your area. Even if there is not a vulnerable or at risk species in you region, any species would appreciate a helping human hand.

See the outlined strategy taken by Waikerie Primary School below.



1. FIND A LOCAL SUPPORT OR RESEARCH GROUP

An online search may help to find a local support or research group. The Waikerie Primary School YET group is extremely lucky to have the Regent Parrot Recovery Team as their partner, to help protect this beautiful bird.

See Websites/References.



2. CONDUCT A BIODIVERSITY AUDIT OF SCHOOL & LOCAL AREA

At Waikerie Primary School, the students conducted a Biodiversity Audit of their school and local area. It was important for the students and the local community to understand that each environment has its own particular biodiversity.

The worksheets/audits are available from the NRM website.



3. CONDUCT AN ID CHART FIELD/STUDY

These worksheets are also available through the NRM, or encourage your students to develop their own. YET made a Bird ID chart featuring various local bird species; it took several reviews to refine the final chart. You can view the chart here:

http://www.juniorlandcare.com. au/wp-content/uploads/2014/11/ YET-Bird-ID-chart-2012.pdf

4. IDENTIFY EXISTING HABITATS

Identify existing habitats and features in the school and local area: students should appreciate that habitats may be natural or planted by humans.

For example, in the Waikerie area students could identify various habitats including the school garden, remnant bushland, roadside vegetation, fruit orchards, vineyards and riverine vegetation. Some or all may be important to the species being studied.



Step Three
Explain how important it is to protect vulnerable species

Objective: Students interpret the information and communicate the importance of protecting the vulnerable species



Once the students have the information on their chosen species, encourage them to present their findings to the school by:



Speaking to other classes about their research and to share their information.



Peer teaching to younger classes.



Mounting a project display inviting others to share their viewpoints and ideas.



Presentation at the school assembly.



Using the school newsletter to communicate ideas.



6. Online sharing – through blogging or social media.

CASE STUDY EXAMPLE

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Step Four Elaborate on concepts and Ideas



Objective: Begin to inform the local community and the wider area about at risk species and/or local biodiversity issues.



- 1. Encourage the students to reach out to the local newspaper and other regional media to present their research and project.
- Mount displays and signs around the area to inform locals and tourists. Encourage the students to think about what can be produced for display at the library and council offices.
- Connect with the local council to ask for help for signs to be erected in areas of known habitat of your species.

4. STAY ENGAGED WITH GRANT OPPORTUNITIES

Encourage your school and the local community to keep abreast of available grants that may financially help in developing and promoting your species project. Grants may be available via local councils, NRMs or Catchment Management Authorities

(CMAs), Landcare Australia and State Landcare groups. These organisations may also assist in developing and promoting your species project. For updates on grants and other information and stories, students and teachers can sign up to the free Junior Landcarer monthly e-newsletter from the website www.juniorlandcare.com.au

An amazing Biodiversity app is available - see <u>questabird.com</u>

Step Five Evaluate

Objective: Students to assess the effectiveness of the various parts of their project and make any necessary changes to what they are doing. Junior Landcare

Enhancing habitat and reducing the decline of a vulnerable species is an ongoing task that needs monitoring, evaluation and changing anything that doesn't work.



Ongoing biodiversity audits
 and ID field studies and reports
 back to the school and the local
 community are essential. Hold
 regular meetings in the school and
 with local community partners to
 keep information, accurate data
 and enthusiasm flowing.



 Discuss ways the class might communicate its successes and engage others to try the ideas that worked and to avoid those that did not.



 Brainstorm any actions that could have been done differently to get a different result.

CASE STUDY EXAMPLE

Waikerie Primary School and YET are privileged to have an aviary bred Regent Parrot which was kindly donated to the school. "Reggie" lives in the aviary and garden area, which was specifically built through funding from an NRM grant. Despite the need for special permits and specific conditions to be in place to keep a protected species, having "Reggie" in the school grounds continues to inspire the students and the community to continue their dedication to the recovery project and the enjoyment of their environment.



For example, YET changed its bird ID charts several times before coming up with the final version. Follow this link to view *Local Bird Identification Sheet* produced by Waikerie Primary School.

www.waikerieprimaryschool.com.au

This Junior Landcare resource is proudly supported by Landcare Australia, PIEF, and through funding from the Australian Government's National Landcare Programme















CROSS CURRICULUM PRIORITIES: SUSTAINABILITY

O1.2 All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival.

OI.3: Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.

OI: 5 World views are formed by experiences at personal, local, national and global levels, and are linked to individual and community actions for sustainability.

OI.7: Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.

OI.9: Sustainable futures result from actions designed to preserve and / or restore the quality and uniqueness of environments.

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), downloaded from the Australian Curriculum website on 8th September October 2014.

RESOURCES

- Australian Academy of Science. (2005) Primary Connections, Canberra, ACT
- Regent Spotter's Diary available through RWLandcare
- ABC Splash <u>splashabc.net.au</u> search 'vulnerable species'
- Natural Resource Management - <u>naturalresources.sa.gov.au/samurraydarlingbasin</u> search 'Teacher Resources'

YEAR 5 SCIENCE

STRAND: Science as a Human Endeavour: The use and influence of science.

ENTRY: Scientific knowledge is used to inform personal and community decisions ACSHE217

YEAR 6 SCIENCE

STRAND: Science Understanding: Biological Sciences

ENTRY: The growth and survival of living things are affected by the physical conditions of their environment ACSSU094

YEAR 5 & 6 HEALTH AND PE

STRAND: Personal, Social & Community Health

ENTRY: Being healthy, safe & active. Plan strategies to promote health, safety and wellbeing. ACPPS054

WEBSITES

- Youth Environment Team's award-winning Junior Landcare nomination
 - landcareonline.com.au/wp-content/uploads/2014/06/ SA-Waikerie-Primary-Youth-Environment-FINAL.pdf
- Australian Curriculum, Assessment and Reporting Authority (ACARA),
 - australiancurriculum.edu.au
- Australian Government Department of Agriculture <u>daff.gov.au/forestry</u>
- QuestaBird <u>questabird.com</u>
- Riverland West Landcare facebook.com/riverlandwestlandcare
- Scootle
 - scootle.edu.au/ec/resolve/view/R11086?accConten tid=
- Threatened Australian Species (2011), Educational Services Australia Ltd, TLF - IDR11086

This collection of 20 digital curriculum resources contains a diverse selection of Australia's threatened animals. It is organised according to their conservation status—endangered, vulnerable or extinct—and includes many images of animals in their natural environment or in museums as preserved specimens. Videos show scientists discussing threats to some animals and interactive learning objects allow students to explore the habitats and biology of some well-known and lesser-known Australian animals, as well as threats to them.

Learning areas: Science Year levels: 1, 2, 3, 4, 5

WE'D LIKE TO THANK OUR PARTNERS... Karen Bishop

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