



CASTLEREAGH CONNECTIONS

restoring and caring for our Castlereagh River

Stage 3 program



With optimism, education and connection to the Castlereagh River, we give students an opportunity to make a difference by caring for the world around them and creating happier and resilient children in our community.

Healthy rivers create a microclimate that benefits stock, wildlife and fish by reducing air and water temperatures in hot weather and protecting biodiversity when it is cold.

Healthy rivers play an important role in reducing the effects of climate change. Riparian soils and leaf litter store large amounts of carbon and are significantly better at reducing nitrates than terrestrial soils.

Healthy rivers increase our vitality and connection to nature, who we are and how we live!

Key questions

- How do physical conditions affect the survival of living things?
- How do the structural and behavioural features of living things support survival?



We acknowledge the Aboriginal Peoples and recognise their continuing connection with, and knowledge about, land, waters and community. We pay our respects to them and their cultures; and to Elders past, present and emerging.

Day 1

Exploring the Castlereagh River

Canoe trip

Students canoe down the Castlereagh discussing what this would have been like before this area was settled and how the weirs have affected the biodiversity for both flora and fauna.

Visioning

Visioning is a meditative exercise where we imagine what the Castlereagh could be like and how it can be improved. In this visioning exercise students come back to the Castlereagh River when they are 30 years old and imagine what the Castlereagh River looks and feels like.



Day 2

Morning Session

Water quality and survey for birds, rubbish and flora

Students will be divided into two groups and each group will rotate to do both activities.

Group 1: Groups will be walking along the path along the Castlereagh to get extensive data for the surveys. Students will also be collecting endemic seeds to create seed bombs. Endemic plants are species found naturally in this area.

Each group will be given survey sheets, binoculars, gloves, LLS guide to weeds in Western NSW and the book on local flora 'Warrumbungle Wildflowers'.

Group 2: Using dip nets we will investigate the diversity of water macroinvertebrates which will be used to determine the health of the Castlereagh. We will also test the Ph and turbidity. Turbidity is the measure of relative clarity of a liquid. It is an optical characteristic of water and is a measurement of the amount of light that is scattered by material in the water when a light is shined through the water sample. The higher the intensity of scattered light, the higher the turbidity.

Afternoon Session

Brainstorming and painting

Brainstorming

Students are divided into small groups to discuss how to make the Castlereagh River a better place for all – animals, people and plants. Students are then brought into a large group where we start to make a bigger plan of what we can do to improve the Castlereagh River and who may be interested in being involved on this journey.

Painting

The students draw the river as they see it improved. Draw from above (a birds eye view) and then draw one that has all the finer details.

Teachers will assist students with getting their ideas from their head onto paper. Students will work with colour mixing, shape, form and design using light and dark.



Back at school activities

Analysing data

- Process and analyzing data
- Use a range of methods to represent data, including tables and column graphs
- Identify patterns and trends in gathered data
- Compare results with predictions
- Suggest possible reasons for findings

Class research

- Cultural connection and local Aboriginal history to the Castlereagh
- Coonabarabran Land Care
- Significance of reintroduced plants, care and planting
- Town beautification committee
- Stories regarding the Mary Jane Cane Bridge (for Coonabarabran students only)
- River biodiversity and importance of habitat
- What is the community's vision?
- Making seed bombs with endemic seed



NSW syllabus links

Outcomes	Content
<p>Science and technology (2024)</p> <ul style="list-style-type: none"> uses evidence to explain how scientific knowledge can be used to develop sustainable practices ST3-SCI-01 interprets data to support explanations and arguments ST3-DAT-01 	<p>Science and technology (2024)</p> <ul style="list-style-type: none"> observe behavioural and structural adaptations of plants and animals, and suggest how these may help them survive in their environments
<p>PDHPE (2024)</p> <p>Movement, skill and physical activity</p> <ul style="list-style-type: none"> refines and applies movement skills, strategies and collaboration in physical activities PH3-MSP-01 	<p>PDHPE (2024)</p> <p>Movement, skill and physical activity</p> <ul style="list-style-type: none"> investigate and engage in physical activities to increase enjoyment and motivation to be physically active in the community combine movements with control and precision for various purposes, including games, sport or physical activity move the upper body to reach, push and pull with control and precision
<p>Creative Arts (2024)</p> <p>Visual Arts</p> <ul style="list-style-type: none"> makes artworks in intentional ways to represent ideas about their world, and explains ways artists are influenced by contexts and how 	<p>Creative Arts (2024)</p> <p>Visual Arts</p> <p>Making: Artists represent their world in intentional ways through their artmaking practice</p> <ul style="list-style-type: none"> represent ideas or perspectives of their world and intentions in own artmaking and practice

artworks are interpreted by audiences CA3-VIS-01	<ul style="list-style-type: none"> • explore artistic conventions and ways to represent subject matter and ideas in compositions
<p>Science and Technology (2017)</p> <ul style="list-style-type: none"> • plans and conducts scientific investigations to answer testable questions, and collects and summarises data to communicate conclusions ST3-1WS-S • plans and uses materials, tools and equipment to develop solutions for a need or opportunity ST3-2DP-T • examines how the environment affects the growth, survival and adaptation of living things ST3-4LW-S 	<p>Science and Technology (2017)</p> <ul style="list-style-type: none"> • test predictions by gathering data and use evidence to develop explanations of events and phenomena • understand that scientific and technological knowledge is used to solve problems and inform personal and community decisions • describe the structural and/or behavioural features of some native Australian animals and plants and why they are considered to be adaptations
<p>PDHPE (2018)</p> <p>Movement, skill and performance</p> <ul style="list-style-type: none"> • proposes, applies and assesses solutions to movement challenges PD3-5 • selects, manipulates and modifies movement skills and concepts to effectively create and perform movement sequences PD3-11 	<p>PDHPE (2018)</p> <p>Movement, skill and performance</p> <ul style="list-style-type: none"> • participate positively in groups and teams by encouraging others and negotiating roles and responsibilities
<p>Creative Arts (2006)</p> <p>Visual Arts</p> <ul style="list-style-type: none"> • investigates subject matter in an attempt to represent likenesses of things in the world VAS3.1 	<p>Creative Arts (2006)</p> <p>Visual Arts</p> <ul style="list-style-type: none"> • interpret subject matter which is of local interest in particular ways in their making of artworks • learn about a range of concepts and subject matter that is of interest to the artworld and community
<p>Geography (2015)</p> <ul style="list-style-type: none"> • describes the diverse features and characteristics of places and environments GE3-1 • explains interactions and connections between people, places and environments GE3-2 • compares and contrasts influences on the management of places and environments GE3-3 	<p>Geography (2015)</p> <ul style="list-style-type: none"> • investigate the ways people change the natural environment in Australia • investigate how the natural environment influences people and places • investigate how people influence places

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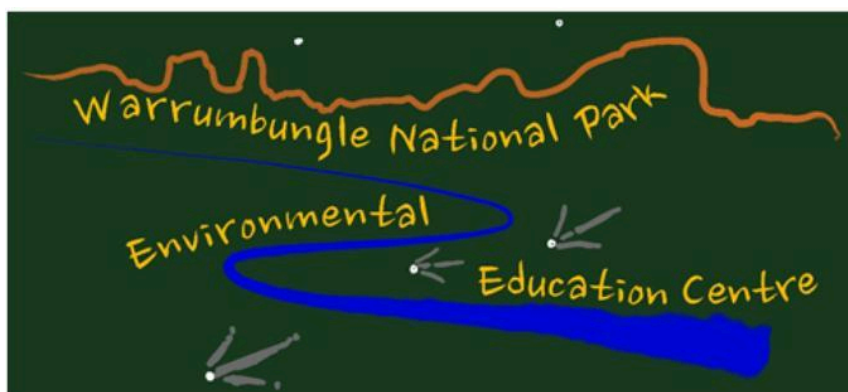
Geography K-10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2015

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Thank you for being part of Castlereagh Connections, caring and respecting our Earth and our rivers.



Education