

STAGE FOUR - GEOGRAPHY

Water In The World



UNIT OVERVIEW

The Cudgegong River has been a vital part of the landscape for thousands of years. It played an integral role in the lives of the Wiradjuri people, the early European settlers and remains important to many thousands of people today. Students learn about the value of water and the importance of sustainable management for biodiversity, riverine health and future generations. Students will observe and document the past and present human use, water quality and

OUTCOMES

GE4- 3 explains how interactions and connections between people, places and environments result in change

GE4- 5 discusses management of places and environments for their sustainability

GE4- 7 acquires and processes geographical information by selecting and using geographical tools for inquiry

GE4- 8 communicates geographical information using a variety of strategies

KEY INQUIRY QUESTIONS

- How do natural and human processes influence the quality, distribution and availability of water as a resource?
- What approaches can be used to sustainably manage water resources and reduce water scarcity

FIELDWORK SITES- Cudgegong Catchment

- Cudgegong River: Ganguddy - Dunn Swamp, Rylstone, Windamere Dam, Lawson Park, Putta Bucca Wetlands, Beryl
- Wyaldra Creek, Gulgong

PRE- AND POST- MATERIALS

Schools will be supported prior to undertaking fieldwork with high quality teaching and learning activities including mapping, skills, data analysis and investigating background information. Students will develop an understanding of the water cycle, land use impacts on catchments, river regulation and water sharing. Suggested assessment tasks to be completed at the conclusion of the study will also be provided.

DETAILED SITE OBSERVATION

Students use geographical skills to undertake a detailed site observation. Activities include creating a site sketch/cross section of the site, describing topographical features, using a GPS and documenting evidence of flood. Students will conduct a rapid habitat assessment and observe and record the birdlife of the riparian zone.

WATER QUALITY: MACROINVERTEBRATES

Students conduct a survey of macro invertebrates as an indicator of water quality. Students participate in dip-netting at both sites, recording the sensitivity, abundance and diversity of water bugs and how these factors are impacted by water quality.

WATER QUALITY: ABIOTIC FACTORS

Students undertake a range of field water testing procedures to examine the abiotic factors of the waterway including turbidity, salinity, pH and temperature. Students develop an understanding of how the abiotic characteristics of the water can be used to interpret the water quality of the system and consider the causes of the results.

SITE COMPARISON

Students consider the similarities and differences between the fieldwork sites and consider the factors influencing their observations. Current and future management strategies are considered in relation to the regeneration and sustainability of the catchment.

For bookings or further enquiries about this program, please contact Red Hill Environmental Education Centre on 02 6374 2558 or redhill-e.school@det.nsw.edu.au.

