



KINGS PARK  
& Botanic Garden

# Kings Park Education



SECONDARY SCHOOL  
*Programs*

2024





# Bold Park

## WA ECOLOGY CENTRE



The Kings Park Education team deliver ecological-based STEM programs to help increase environmental literacy and encourage creative problem solving for real-world environmental issues.



### LAND COVER CHANGE AND BIODIVERSITY LOSS

YEARS 11 -12 (90 minutes)

**An introduction to ecological sampling to survey biodiversity loss and land cover change.**

Students investigate strategies of restoration, rehabilitation and mitigation in relationship to the management of Bold Park, an A-class reserve, managed by the Botanic Gardens Parks Authority. The causes of biodiversity loss and the impacts of land cover change are discussed. Students will participate in methodologies of in-situ conservation, using transects and quadrats to carry out a vegetation profile of the Banksia woodland - a Threatened Ecological Community.

**Curriculum links:** Geography ATAR Unit 3



### ECOLOGICAL FIELD STUDIES

YEARS 10 -12 (90 minutes)

**An introduction to ecological sampling to survey disturbance in the ecosystem.**

Centrally located Bold Park, an A-class reserve, provides opportunities for students to practice hands-on in-situ conservation methodologies. Using transects and quadrats to carry out a vegetation profile of the Banksia woodland - a Threatened Ecological Community. Using collected data, the students will evaluate the interactions between abiotic and biotic components. They will also consider the effects of historic disturbance, urbanisation and the importance of conserving urban bushland areas.

**Curriculum links:** Biology ATAR Unit 1 | Biology General Unit 4 | Integrated Science ATAR Unit 2

### BIODIVERSITY CONSERVATION STRATEGIES

YEARS 10 -12 (90 minutes)

**In-situ restoration, classification and conservation.**

Increase environmental literacy and civic interest in biodiversity at Bold Park, the largest urban remnant bushland on the Swan Coastal Plain. Students will use classification tools to identify Banksia woodland plant species and undertake seed conservation strategies used in restoration programs. Discuss conservation approaches used to maintain plant biodiversity and the impact human activities can have on an ecosystem.

**Curriculum links:** Biology ATAR Unit 1 | Biology General Unit 4 | Integrated Science ATAR Unit 2 | Geography ATAR Unit 3





# Kings Park

## AND BOTANIC GARDEN



### FIRE - A NATURAL HAZARD

**YEARS 10 - 12** (90 minutes)

#### Fire Ecology and Management

Fire - A Natural Hazard, looks at the research conducted by Kings Park Science on the impact of different fire management activities on the persistence of native plant species in Kings Park and Bold Park. Students will conduct surveys to assess fuel loads, soil moisture, tree canopy and the density and structure of the plant community (native species and weeds). Causes, characteristics and composition of bushfires will be discussed.

**Curriculum links:** Geography ATAR Unit 1



### WETLAND ECOSYSTEMS

**YEARS 7 - 12** (90 minutes)

#### Wetland ecosystem assessment.

Use scientific sampling techniques to carry out an assessment of a freshwater aquatic ecosystem. Identify and classify macroinvertebrates, analyse sensitivity scales to monitor biodiversity. Learn to collect reliable abiotic data to evaluate the health of any wetland ecosystem, use this knowledge to participate in the 'National Waterbug Blitz' citizen science project.

**Curriculum links:** Science | HASS | Biology ATAR Unit 1 | Biology General Unit 4  
Integrated Science ATAR Unit 2 | Geography ATAR Unit 3



### TREE TALKS & WILDFLOWER WALKS

**YEARS 7 - 12** (90 minutes)

#### Choose your own adventure!

This guided walk is a unique opportunity to adapt the learning experience to your group's curriculum needs, be it, history, biology, geography, art, conservation or tourism. With one of our passionate educators walk through the spectacular Western Australian Botanic Gardens, experience the panoramic views of Perth and the Swan River and discover the science and culture of Kings Park, Kaarta Koomba.



### BUSHLAND CARERS

**YEARS 7 - 12** (90 minutes)

#### Seed Science and conservation techniques for ecosystem survival.

Discuss Western Australian biodiversity and the importance of its conservation. Learn about taxonomy and undertake real-life scientific processes to collect specimens. Press a plant specimen to create an herbarium record. Learn how to clean and dry seeds for future propagation. Using a native seed, design a fair test to investigate barriers in germination.

**Curriculum links:** Science | HASS



Equipped with skills to lead at school and in their community, students can become custodians for environmental change and join Kings Park and Bold Park in the global movement to restore our world.



# Kings Park

## AND BOTANIC GARDEN

### OUTDOOR EDUCATION

**YEARS 7 - 12** (90 minutes)

#### Active and safe in the natural environment.

Kings Park's Outdoor Education program is a great introduction in practising skills to be safe and self-reliant in the natural environment. With a focus on minimal impact, students are encouraged to respect and protect the natural environment, while learning how to explore and enjoy it safely. Develop basic bush craft skills, such as shelter building, finding drinking water, building safe campfires (Terms 2 & 3 only), making damper or energy snacks and fire lighting techniques.

Available as two 45min classes or one 90min class.

**Curriculum links:** General Capabilities | HASS | Science | HPE



### CHILDREN AND OUTDOOR PLAY

**YEARS 10 - 12** (90 minutes)

#### The psychology of outdoor play for healthy childhood development.

Experience first-hand unstructured outdoor play in an immersive tour of two of Kings Park's play spaces. Visit the Poolgarla Family Area and the Ivy Watson Playground, specifically designed for children under six years. Finish at Rio Tinto Naturescape Kings Park, one of the world's first nature-based discovery and learning spaces. Discuss the importance of outdoor play in the cognitive, social, and emotional wellbeing of a happy whole child. Focus on the aspects of human development, psychology, and contemporary play space design.

**Curriculum links:** Psychology ATAR Unit 2 | Psychology General Unit 2 | Children, Family, and the Community ATAR | General Unit 1&2 VET Industry Specific (Certificate III in Early Childhood Education and Care)



### ABORIGINAL CULTURAL EXPERIENCES

**YEARS 7 - 12**

Visit our website to select your authentic cultural experience in Kaarta Koomba - Kings Park from a local Aboriginal business.



### ORIENTEERING

**YEARS 7 - 12** (60 or 90 minutes)

#### Navigation and map reading skills.

Develop and practise navigation skills on the Kings Park orienteering course. Students will learn how to successfully read a map; identifying symbols, contour lines and map orientation. Teams will use problem-solving skills, to navigate a series of control points, discovering interesting plants and completing challenges along the way. The course is a great opportunity for students to work in a team to avoid getting geographically compromised!

**Curriculum links:** General Capabilities | HASS | Science | HPE







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UNITED NATIONS DECADE ON  
**ECOSYSTEM  
RESTORATION**  
2021-2030

#GenerationRestoration

## Bookings

Bookings are essential for all excursions to Kings Park and Bold Park, including guided and self-guided programs and special events. For more information on planning your excursion and to book, visit our website:

**[bgpa.wa.gov.au/education](http://bgpa.wa.gov.au/education)**

## Contact

### KINGS PARK AND BOTANIC GARDEN

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