Warrumbungle National Park

Environmental Education Centre

NSW Education

Secret Life of Plants

Stage 2 Science and Technology

Students through inquiry solidify their understanding of the importance of living things and investigate similarities and differences among living things.

Key questions

- How can we describe features of plants?
- How are environments and living things interdependent?
- How do plants and animals depend on each other for survival?

Program overview

This program comprises pre-work, incursion/excursion and post-work.

The program focuses upon the classification, life cycles and survival of living things. Using our local environment, students investigate and classify a range of plant species, recognise the interdependence of plants and their insect pollinators. Students design and produce an experimental system to monitor the growth of plants from seed and examine the critical role plants play as a habitat for a wide variety of animals. Students will be equipped with a field journal, allowing a range of measurements and observations to be collected for further examination and use back in the classroom.

Outcomes	Content
Science and Technology (2024) ● Uses information to investigate the solar system and the effects of energy on living, physical and geological systems ST2-SCI-01 ● Poses questions to create fair tests that investigate the effects of energy on living things and physical systems ST2-PQU-01 ● Uses and interprets data to describe patterns and relationships ST2-DAT-01 Science and Technology (2017) ● Questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations ST2-1WS-S ● Compares features and characteristics of living and non-living things ST2-4LW-S	Science and Technology (2024) ● Observe and describe living and non-living things in a habitat ● Pose questions to conduct fair tests to determine the effects of soil, water and light energy on plants ● Describe ways in which plants and animals depend on each other for survival Science and Technology (2017) ● Identify that living things have life cycles ● Conduct an investigation into the life cycle of plants and/or animals ● Describe how living things depend on each other and the environment to survive, for example, bees and flowers ● Design, plan and produce a product, system or environment to support the growth of a plant and/or animal

Indicative schedule

Time	Activity
9.30	Acknowledgement of Country and introduction
9.45	Seed dispersal and design a seed fit for survival
10.30	Seed germination experiment
11.00	Recess
11.20	Flower dissection and explore the microscopes as scientists
12.45	Lunch
1.15	Design a seed bomb
1.45	Plants as habitat

Learning experiences

Life Cycles of Plants

Students investigate the relationship between plants and bees, exploring the role pollination plays in the formation of fruit and seeds. Students examine different fruiting structures of a range of plant species and create sketches to document the variety of structures which exist in nature.

Seed Experiment

Students are led through the design and production of a ‘bag garden’, which will be taken back to school. This experiment will allow the students to observe and measure the germination and growth of a plant in the classroom and log their findings within their field journal.

Flower Dissection

Working in a small team, students will follow a procedure to dissect a flower into its core components. This allows each of the structures to be observed and the role in which the play for germination will be explained.

Plant ID and Classification

Students will utilise a key to identify, classify and compare plant species based upon leaf shape and structure.

Seed Bombs

Students will design a seed bomb composed of native plants that will assist to restore their local environment.

Plants as Habitat

The role of eucalypts is explored by examining how trees are essential at providing valuable habitat for a range of animals.