Beneath Our Feet

Stage 2 Science

Program Overview

The sandstone country of northern Sydney is millions of years old and over time has been gradually eroded to form the spectacular valleys and ridges we see today. During the day, the students will observe this natural erosion, investigate erosion in built areas and examine the components of soil and how it is formed.

Inquiry Questions

1. How do rocks change over time?
2. What are the features of soil and how is it formed?
3. Why should this Park be protected?

Learning Experiences

Explore Kalkari

Kalkari Visitors Centre provides the students with an opportunity to learn about the Ku-ring-gai Chase National Park, including observations of some of the different rocks found in this area. The students will also be able to observe a range of preserved animals and remains of animals to get a sense of that type of animals that call the Park home. Within the Centre, students will also be able to observe Aboriginal artefacts and learn about Aboriginal engravings - a significant feature of the Park.

Creating Soil

This hands-on activity explores features of leaves and how their decomposition is a key to the creation of soil. During this activity, students will also investigate features of soil and the cycling of materials in soil.

Bushwalk - Kalkari - to Bobbin Head

Students will learn about invertebrates in the environment and the interconnected nature of invertebrates, habitat and other animals through observations of the Brush Turkey at Kalkari. Significant plants, animals and examples of erosion of the local area will be identified along the walk. Students will hear of the interconnected nature of traditional Aboriginal people and the land.

Mini Beast Hunt

Students will work in groups to conduct an invertebrate survey in a bush habitat. If students are using cooperative learning teams the role for each member will be revised. Together the class will negotiate a code for caring for ethical and safe handling methods. Students will record the name and draw the observable features of the invertebrates they find. They will also collect a tally of the total number of that species found in their area. Students will use a simple dichotomous key to correctly identify the invertebrate species.

Erosion of Earth's Layers

Using a birthday cake analogy, students will gain a clearer understanding of the different sandstone rock layers and propose erosional forces that transform these layers through an engaging activity that enables them to use the properties of the sandstone to colour in a diagram.

Key Syllabus Outcomes and Content

Note: This excursion is aligned with the Primary Connections Stage 2 unit Beneath Our Feet.

Science K-6

Explicitly teaches:

Earth's surface changes over time as a result of natural processes and human activity. (ACSSU075)

Students:

- describe some changes in the landscape that have occurred over time as a result of natural processes, eg erosion by wind and water

Contributes to:

Living things, including plants and animals, depend on each other and the environment to survive (ACSSU073)