

Pretoria NBG Environmental Education: List of School Programmes on offer

Grade R-3

- **Sensory Activities:** Games and activities to encourage the use of the senses. A variety of themes can be explored, e.g. seasons, colours, plants, textures.
- **Biodiversity Investigation:** Identification, recording and classification of living and non-living components in a sample plot.
- **Water is life:** A look at life in a pond and other water-related activities
- **Trees I Touched:** Get to know trees using your senses! Trees are the central theme on which a range of activities are based.

Grade 4-8

- **Biodiversity Investigation:** Identify, record and classify the living and non-living components within a sample plot.
- **Water is life:** A look at the diversity of life in a pond, the importance of water and the sustainable use of water.
- **Biodiversity: Benefits and Dangers:** What does 'biodiversity' mean? This programme explores the dangers facing the diversity of life, benefits of biodiversity and ways to sustain it.
- **Traditional Plants Uses:** The medicinal garden provides is an ideal place to identify medicinal plants and their traditional and cultural uses.
- **Life in the leaves:** A study of leaf litter and the ecology of the organisms that live in it.
- **Vegetation Types:** An elementary comparison of vegetation (biomes) of the forest, desert, fynbos and grassland areas.
- **Alien Invasive Plants:** Indigenous versus alien plants. Identification of alien invasives and their dangers to biodiversity.
- **Food Chains and Food Webs:** A practical look at food chains and food webs. Classification of herbivores, carnivores and omnivores.
- **Plant Adaptations:** A practical look at plants adaptations, comparing the forest and semi-desert areas.
- **Grassland Life:** Explore the biodiversity in the grassland.
- **Weird and Wonderful:** Learners are taxonomists exploring and classifying a variety of plants with the focus on algae, mosses, ferns and fungi.
- **Trees I Touched:** Trees are the central theme on which a range of activities are based.
- **Seeds:** A game introduces germination and seed adaptations. Learners explore the importance of seeds to people through cultural activities

Grade 8-12

- **Plant Adaptations:** A comparison of the adaptations of plants in the mountain forest and semi-desert areas.
- **Cycads Alive:** An introduction to gymnosperms and looking at cycads as 'living fossils'. It compares different adaptations to different habitats, the importance of cycads and the impact of people on their survival.
- **Grassland Ecology:** Sample plots and line transects are used to identify, record and classify the biotic and abiotic components of the grassland.
- **Diversity of Plants:** The garden becomes a walk through time and space as learners review the plant kingdom and the way in which plants have evolved.
- **Traditional Plant Uses:** The Traditional Plant Garden grows a wide range of indigenous plants for learners to compare traditional medicinal plants with 'modern' medicines. They will apply concepts such as 'benefit-sharing' and 'sustainable use' of resources.
- **Population Dynamics:** A practical field application of comparing different sampling methods in the grassland.
- **Ecotourism:** Explore the Pretoria National Botanical Garden as a destination for tourists.

Optional consolidation activities: These activities can be combined with a programme above.

- *Plant Tissues: Practical identification of tissues, based on morphology. (Prog. 1)*
- *Garden design: Apply knowledge of plant adaptations to plan a garden. (Prog. 1)*
- *Why sustainability?: Making decisions for sustainable development. (All programmes)*