

Theme	Learning Programme	Grades
1. Introduction to Kirstenbosch	R. A sensory exploration of Kirstenbosch, with a focus on the seasons. CAPS	R
	A. Parts of plants and a sensory exploration of Kirstenbosch. CAPS	1
	P&P. Exploring Past and Present in the garden, finding evidence dating from 200 million years ago to the present. CAPS	3
	B. Using a map to explore the differences and similarities in nature. CAPS	3
	C. Discovery of fynbos and forest through map orientation	4, 5, 6
	D. Using a map to discover the diversity of indigenous plants & an historical route in Kirstenbosch	7, 8
	F. A study of a wetland ecosystem and introduction to Kirstenbosch garden. CAPS	6, 8 + skills
2. Ecology	A. Finding out about a forest ecosystem. CAPS	4
	B. Investigating inter-relationships in the forest ecosystem. CAPS	8
	C. Investigating a forest ecosystem: biotic and abiotic factors, photosynthesis and energy transfers. We discuss value, threats and possible solutions for this ecosystem. CAPS	10
	D. Birds and their place in the ecosystems of the Western Cape	7,8
	E. Rocks, soil and cycles of life. CAPS	5
3. Plant adaptation	A. Investigating plant adaptations with respect to climate and defence mechanisms	7
	B. Investigating transpiration and the different mechanisms plants use to limit transpiration. CAPS	10
4. Plants and people	A. Exploring the sustainable use of resources, including useful plants, recycling and worm farming. CAPS	3
	B. Investigating the uses of the different parts of indigenous plants CAPS	4 / 5
	D. Investigating sustainable methods of utilising plant resources	7, 8, 9
	E. Exploring indigenous knowledge, including uses of plants, stories and myths, in Kirstenbosch Garden. CAPS	6
	F. Understanding the pressures on and sustainable use of plant resources	10, 11
	G. Investigating the sustainable use of plant resources, followed by an introduction to Kirstenbosch.	10, 11
5. Biomes	A. Comparison of Forest, Fynbos and Succulent Karoo biomes in Kirstenbosch; adaptations to different conditions; this lesson includes a field sketch.	5
	B. Comparison of Forest, Fynbos and Succulent Karoo biomes in Kirstenbosch using climate and biome maps. We focus on the biotic and abiotic factors, as well as the transfer of energy within the FYNBOS ecosystem. A dichotomous key is used to identify Fynbos families. Threats, pressures and solutions for each biome are discussed. CAPS	Gr 10 L. Sciences
6. Water	A. Investigating the importance of water, the organisms that inhabit it and what threatens them. Sensory activities are included (2½ hr). CAPS	2
	B. Understanding ecological processes associated with fresh water and the conservation and responsible use thereof. (Only available seasonally) CAPS	4
7. Agriculture	A. Ecological influences on South Africa's farming practices; plant reproduction and sustainability; practical propagation skills. CAPS	10 & 11
8. Tourism	A. Kirstenbosch as a tourist destination. CAPS	10
9. Biodiversity and Global Warming	A. An in-depth investigation of the Fynbos, forest and succulent ecosystem biodiversity found in the Western Cape.	5, 6 + skills
	B. Global Warming : understanding climate change and its effects on biodiversity	5,6,7
	C. The impact of waste on biodiversity – introduction, walk and art workshop, using recycled materials (4 hours / R30.00 pp)	5, 6
	D. Classification, biodiversity and plant pollination and reproduction. CAPS	7
	E. Indoor & outdoor lesson- Use video microscope and hand lenses indoors to look closely at different plant groups. Comparison of Bryophytes, Pteridophytes, Gymnosperms and Angiosperms, sexual and asexual reproduction, seeds, and the role of plants in ecosystems. CAPS	11 Life Science
	E. (Outdoor) Comparison of Bryophytes, Pteridophytes, Gymnosperms and Angiosperms, sexual and asexual reproduction, seeds, and the role of plants in ecosystems. CAPS	11 Life Science
	F. Global warming, loss of biodiversity in Cape Town, interdependence, sustainable use of resources. Personal responses to these issues. CAPS	11 Life Orientation
	G. Global warming: using maps & investigating impacts on local ecosystems & responses. CAPS	9