



## **INFORMATION**

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## THROUGH 'YEP' WCC COMMITS TO

- ✓ Enhancing environmental education in schools
- ✓ Presenting educational tours and lessons at the Green House Environmental Resource Centre
- ✓ Exploring environmental topics on the themes of
  - water and other natural resources
  - the importance of the region's biodiversity
  - energy sources and savings
  - waste management
- ✓ Offering Teacher Professional Development workshops and courses
- ✓ Aiding schools with their 'Green Reports'



## DESCRIPTION

Whale Coast Conservation introduced the Youth Education Programme (YEP) in 2015 to meet new and exciting environmental education challenges. WCC will engage with registered YEP schools to assist in the delivery of excellent environmental education as follows:

1. Each school is entitled to one visit per term to the WCC Green House for a lesson and relevant displays on the theme of the term. This will be CAPS aligned and grade appropriate. As the annual calendar is very full, schools are requested to finalise the desired dates for their visits as early as possible. A maximum of 35 learners can be accommodated per visit. Additional visits can be arranged at a cost of R10 per learner
2. WCC will lead the schools in celebration of special days aligned to the four WCC environmental themes; **resource use** (incl. **water**), **biodiversity**, **waste and energy**. This will include the Earth Day schools award ceremony, Walking for Water, International Coastal Clean-up and Arbor Week.
3. WCC will offer *Teacher Professional Development* workshops and short courses in 2015, such as the Fundisa GET Teaching Climate Change course; Fundisa FET Teaching Marine Biodiversity course; the Water Explorer programme and the WCC Amanzi library & quiz system workshop.

As an integral part of the YEP programme, WCC will arrange quarterly planning and information sessions for educators as follows:

- Term 1: YEP overview, registration and planning the year at each of the schools
- Term 2 and 3: Information update and training course at the Green House in Hermanus
- Term 4: Evaluation and reporting at each of the registered schools

Teachers benefit from further support in sourcing material and preparation of environmental education content for lessons from our on-site eco-resource centre at the Green House.

4. WCC will aid schools in establishing, maintaining and reporting on their Environmental Practice and Performance and Environmental Education progress. This GREEN Report will document the eco-activities of the individual school; teacher assessments of the programmes as delivered and participated in, educator professional development course attendance and progress as well as the usual annual WCC assessment.
5. YEP schools get free WCC membership which entitles them to attend the WCC monthly public talks; receive the WCC newsletter and other communication on environmental issues and upcoming events; and are encouraged to participate in competitions and special offers.

## **6. Getting going – the process**

### **YEP Sign up:**

Complete the WCC YEP registration form. A registration fee of R850.00 per annum is payable. Payment is due upon receipt of an invoice.

### **Planning of events and visits**

The WCC team will meet with the key role players and design a customised programme for your school. An activity plan will be compiled with your input.

### **Assessments**

Each WCC activity will be assessed by participating educators in order to provide content proof to the Green Report as well as constructive feedback to WCC.

### **Content and sign off report**

This report will detail the performance and engagement of your school in the YEP.

# THE FOUR EDUCATIONAL THEMES

Whale Coast Conservation offers lessons and exhibits on the following themes and topics.

## 1. BIODIVERSITY

### **Lesson 1.1: Biodiversity and Classification of Organisms**

What is biodiversity, classification – from Kingdom to species

### **Lesson 1.2: Terrestrial Biodiversity: Introduction to Fynbos**

What is Fynbos, Cape Floral Kingdom, propagation strategies, role of fire

### **Lesson 1.3: Marine Biodiversity: Kelp Bed and Food Chain**

What is kelp, interrelationships of kelp, sea urchins, abalone, rock lobster, kelp bed food chain, effect of over-fishing

### **Lesson 1.4: Conserving Biodiversity**

Co-existence, conservation, biospheres, MPAs, nature reserves, national parks, NEMA & NEMBA, public participation, citizen science

## 2. HEALTHY ECO-SYSTEMS

### **Lesson 2.1: Eco-system Services**

Earth's ecosystem services, interconnectedness of the environment, ecosystem services and biodiversity, human impact, intervention

## **Lesson 2.2: Catchment to Coast: Managing Ecosystem Health**

Water from mountain to sea, rivers, wetlands, dams, estuaries, impact of humans

## **Lesson 2.3: Monitoring Ecosystem Health**

Watch, observe, measure, record, look for patterns, citizen science projects

## **Lesson 2.4: Eco-House: Living Sustainably**

Our impact on the environment through conspicuous consumption, managing scarce resources, ways of minimising our impact and saving money, environmentally friendly household tips

# **3. ENERGY**

## **Lesson 3.1: What is Energy?**

Sources of energy, forms of energy, types of energy (potential, kinetic), renewable/non-renewable

## **Lesson 3.2: Potential Energy and Kinetic Energy**

Practical demonstration (Bungee Bear), conservation of energy (First Law), why perpetual motion machines are impossible (Second Law), energy crime (loss of useful energy)

## **Lesson 3.3: Harnessing Renewable and Sustainable Energy**

Energy Crime, alternative energy sources (wind, solar, hydro, geothermal, etc.), how to beat load shedding

### **Lesson 3.4: How electricity is generated**

Fossil fuels and steam, turbines and generators, hydroelectric power generation, wave energy converter, photovoltaic panels, solar heat concentration

## **4. RESOURCE MANAGEMENT (WASTE NOT, SAVE A LOT)**

### **Lesson 4.1: Waste not Energy**

Energy crime, energy efficiency, benefits of energy efficiency, eco-house – tips to save energy

### **Lesson 4.2: Waste not Water**

Water and climate change, SA is water-poor, protecting fresh water ecosystems, water purification and waste treatment, water-saving technology and tips, water-wise gardening, etc.

### **Lesson 4.3: Waste and the Environment**

Waste is such a waste, cost of waste disposal, landfill, impact on the environment, why reuse and recycle, dealing with plastics,

### **Lesson 4.4: Food Waste**

Effect on the environment, smart shopping, managing food waste, urban agriculture, etc.

## **ENVIRONMENTAL RESOURCE CENTRE**

Whale Coast Conservation invites educators to make use of the well-equipped environmental resource library at the Green House.

Please call 028 316 2527 to make an appointment.

## **HOLIDAY PROGRAMMES**

Whale Coast Conservation offers 3-day holiday programmes for children aged 9-12 during the school holidays. The emphasis of the programme is on fun activities, but every activity has an environmental education component. Over the three days WCC promotes manual dexterity, problem solving and approaching the environment with a sense of wonder.

Price of the programme to be announced, but a limited number of sponsored places will be available for deserving learners.

## **AMANZI LIBRARY AND QUIZ**

The Amanzi Library was designed and written by WCC staff to contain all the topics covering the theme of water as specified by CAPS. The library has been organised into grades with relevant pages on water topics that must be learned in that year.

Paired with this is a quiz system to assess a learner's understanding of a topic. The quiz provides a teacher with instant assessment results for the class quizzes. This is an interactive e-learning support tool which is housed on the Whale Coast Conservation website. Access is through a quick registration process.