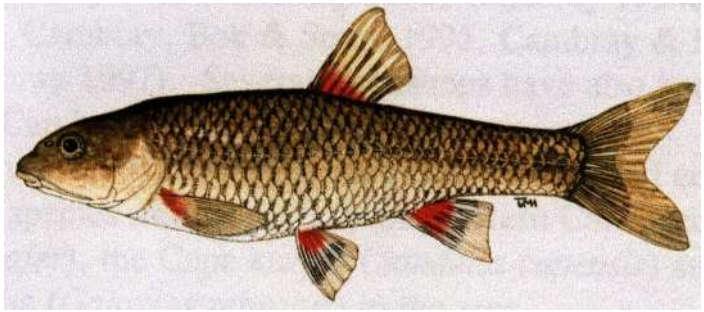
The Tower of Life:

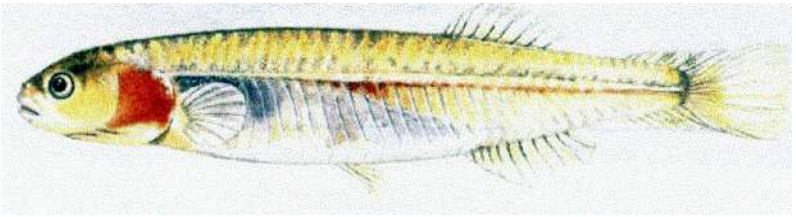
Essentially this colourful and interactive lesson which involves the building of a tower that represents life. We managed to acquire different used boxes and by cutting and gluing created a colourful/pictorial collage of individual building blocks.
The foundation of the tower is the sun and is backed up by the components air, water and soil. These are big sturdy boxes, which gets the kids thinking and on the right track. At this point we get into the realm of plants and present the photosynthesis story in a magical yet practical manner. Without the magic green chemical chlorophyll life on earth would be rather sparse. We also discuss the ability of plants to produce Oxygen in this process and make the obvious connections. We split the plants into primitive (fungi/lichens mosses), trees, fruit, grasses and microscopic plants.
Next we move into the realm of the animal world and use simplified groupings to bring this picture to life so birds, insects, fish, reptiles and amphibians make their pictorial showing with the reptile representative – a Cape Cobra getting much banter flowing. After each group being correctly identified the class then proceeds to name 5 different representatives of that group which a little stimulating from us.

Tower of Life

When we get to the reptiles – a concise lecture is given regarding the dangerous snakes, their behaviour attributes, identification and poison. All of this is highlighted by the statistics regarding snake bites (very low – lightening kills more people in Africa) and the important role these beautiful reptiles play in nature. Furthermore it is emphasised that most snakes more the two thirds are all harmless and many snakes killed as a threat in our area are in fact no snakes but legless lizards (grass lizards and Seps).
When we get to the fish – the example used is our very own endemic the Eastern Cape Redfin Minnow. I highlight and emphasise these and other special and endangered species and mention the problem with exotics like Bass, Carp and Barbel.
The amphibian's section – gives information on the biggest frog our bullfrog, which does not occur in our area and then the difference between frogs and toads. Furthermore the old wives tales that snakes get their poison from frogs is put to rest.

Moving on we now link the plants as food to the herbivores, specifically mammals. We break this down further into grass eaters, browsers, browser/grass eaters and bulbs, uintjies etc (underground plants). Mention is made about identifying browsers versus grazers by mouth shape and the lesser know two species of Rhinoceros are used to highlight this.





Next up are the small meat-eaters (carnivores) and the jackal, honey badger, caracal and mongoose make their appearance. Reference is made to jackals mythological status in African stories and the toughness of the Honey badger highlighted. Mention is further made to the specialised dentition of carnivore's teeth and its function.

The big carnivores – leopard, lion and hyaena are easily named and much discussion and banter erupts at each box being included on the precarious tower. Some facts about these top predators are mentioned to add a bit of drama like the strength of the hyaena bone crushing jaws, the ferocity of the leopard and sociability of the lion pride.

Finally we now come to who ought to be on the very top and of course "people" comes up. This final box has a picture on both sides; one a rather humorous picture of an elderly man and the other is a baboon. Purposefully I turn this to the baboon and carefully balance the box on top. This brings out a rush of laughter and giggling. I then mention the omnivores (meat and plant eaters) of which our primates like baboon are members and then turn the box where the man is represented and is also an omnivore of note.

At this point we ask for a volunteer and ask them to carefully remove the man from the tower, which is right on top. The task is carried out easily. We then get them to replace this box in its place. We then ask who is the naughtiest person in the class and inevitably he or she is unmasked. We ask them to pull out a box in the middle of the tower and this results in the obvious – the tower comes crashing down.
At this important juncture we get the kids to think of the tallest building they have seen and prompt them to imagine a tower built of wine glasses with each wine glass being a different creature or plant.

We emphasise the need to conserve these wine glasses as eventually we will cause the tower to come crashing down. Finally we ask the question can 'people' survive without nature? And a unanimous 'no' erupts. Can nature survive without man and the answer is a unanimous 'yes'.

Culture

In this part of the lesson we set the scene of the old Cape being habited by the San people and create the picture of small bands of hunter-gatherers going about their daily lives. The split of men hunting and woman gathering is made clear and an example of a digging stick with its weighted stone is demonstrated. The spiritual side of the San is touched on through their rock art images (we pass around some good local examples) and we broadly explain the trance rituals. We highlight this people's great affinity with animals and nature in general, and try to convey the message of how difficult it was without all the modern amenities of today. Honey is used as the special commodity as a sweet treat, a medicine and basis for 'karee' or honey beer. Kareedouw is the capital of the Koukamma and the name is more than likely a derivative thereof. We sketch a typical living site and pass around examples of simple tools and implements from such sites.

The situation changes with migrations of Bantu peoples coming down to southern Africa, and as pastoralists significant change is brought. A more advanced civilisation is slowly acquired and the Khoekoen group slowly emerged. Essentially of San origin, spoke the language yet developed into a sheep rearing society.
The Xhosa peoples as a group only came as far as the Fish River, however a renegade group know as the 'fingos' settled the area in the eastern Tsitsikamma's.

Next came the colonists from Europe, and can be grouped into 'Settlers' and 'Boers', English or a combination of French/Dutch/German respectively. This colonisation had a profound and dramatic impact and was the greatest blow to the San people for two main reasons – the diseases that were introduced like small pox and the active hunting and killing/enslaving of these peoples. The San were treated 'worse' than animals and shot on sight in many parts.

The struggle to win back Africa for its own people had begun!

We complete this lesson by stating the significance of the brown or coloured peoples who are a dynamic group with varied and shared genetics from all these races. We think that is something to be really proud of!

Medicinal/Useful Plants

In this lesson we pick up on the previous information and emphasise the knowledge of our natural environment and its useful plants probably largely originates from the San and Bantu peoples indigenous to Africa.

We take along a number of fresh samples and create an interactive discussion forum around the subject. It's quite amazing how much the kids have heard of in their daily lives from 'Ouma' or 'Oupa'.

We use the 'cancer bush' *Sutherlandia frutescens* as a bridge into the world of the AIDS virus. The impact on the immune system is the crucial link and this plant has powerful properties that boost ones immune system, and 'clean ones blood'. This is not a plant to be messed with as like anything too much is dangerous and we do not promote the idea that the kids should experiment as they please.
Other plants that receive attention are the nice smelling *Pelargoniums*, *Dodonaea viscosa*, *Aloe ferox*, *Carpobratus edulis* and even discuss the medicinal value of 'porcupine stomach' as a cure for severe diarrhoea.
All of this comes together in a test with practical prizes for the best 5 in the class. Initially this was a written test however we quickly realised that there were a percentage of kids who could not read or write! An oral group evaluation proved more inclusive (See results). See Appendix 1 for written test.

On the conclusion of the test/evaluation the children assisted with the marking and tallying. The top five students were then handed their respective prizes. The 1st prize was a pair of binoculars and the other 4 were book prizes.

We used this opportunity to introduce the children to the rest of the programme and how it was going to rollout. We explained the leadership component relevance and the limited budget meaning we could not include all students directly. We explained that the next step was a day trip, which would expand

on this initial lesson and would lead to the introduction of a wonderful San story of 'The elephant and the Rain'.

Furthermore we explained how this day trip would serve to acclimatise the children concerned to the area and its assets towards the 6-day camp, planned for early in 2006.
Each child was given a chocolate and fruit juice prior to the beginning of the lesson and the relevant teacher/s were present and contributed to the success of this interaction. On completion of the final school namely Kareedouw Primary we donated the presentation equipment to the Life Sciences teacher who suggested it would be a very useful tool for her other classes and students.