

The TOS Mission

The Time Out for Science (**TOS**) program is designed to present the Sciences as systems of inquiry rather than simply as bodies of knowledge. To this end, the emphasis is placed on having children first come to grips with phenomena through laboratory and field experience, especially through the use of resources such as film, television, computer, complemented by field trips and excursions.

Laboratory experiences are no longer to be used merely to verify previously stated principles. Rather, methods are sought, through the **TOS** program, to encourage the students to discover ideas for themselves and to learn sciences by developing the viewpoints and modes of attack used by scientists in confronting problems.

Science cannot be taught entirely verbally. Children need actual experience to form scientific concepts. These concepts cannot be relayed from teacher to pupil merely by the teacher's verbal explanation. A practical approach is being developed in the Junior secondary as well as at the senior secondary level, using apparatus improvised from everyday materials in addition to orthodox equipment. The **TOS** teacher, tries to provide for adequate experience of the application of the acquired concepts to practical real-life problems as opposed to the simplified and abstract textbook problems.

The **TOS** program, therefore, is a motivational and creative program, that allows students to see the realities of science – both in its nature and applications. It is our hope that through this program, certain ethics and values

EDUCATION

by Maryam Awaisu

Education is a process of training and instruction, especially of children and young people in schools, colleges, universities etc., which is designed to give knowledge and develop skills. For children to be educated, they should live in an environment where there is peace and no war. As I see it, education is really important especially for children, because if children are not educated, you see them walking here and there, stealing and doing different kind of devilish behaviors. All of this is child abuse. I think their parents should do their best to see their children become something in the future. However poor they may be, they should at least try their best to put their children in school. If they can't, they should do something better for them not to let them go out, walk about, and start devilish behavior. Even adults who have not been educated when they were young should try to enroll in adult literacy classes because education is very important. When you are educated, you will know how to take good care of yourself, your environment, and you will know how to cook your food well. An educated person knows how to economize his things, e.g. money, food items etc, but an uneducated person does not. He/she will just spend up his/her money and finish up his/her food items in no time. An educated person is an asset to his family. An educated person has a job and he knows what he earns from his job. He will quickly send his children to school.

I thank God Almighty and my parents for sending me to school. I would like to be a pediatrician in the future. I pray I will also see the day when I will educate my own children.

A Real Sea Monster

by Abdullahi Oyewale

Long ago, people believed in sea monsters. One of the monsters was called a Kraken. People said it had ten arms and was so big that it could swallow a whole ship. Today, we know there is no such thing as a Kraken. But there really are animals somewhat like it. They live deep in the ocean. They are giant squids.

A squid has eight long pointed wiggly arms and two other arms like long paddles. The Squid's eyes are wide and staring. Its body is inside a shell that is long as a man's hand, a shape somewhat like an ice-cream cone. Most Squids aren't much longer than a man's hand. But giant Squids are longer than two school buses in a row. Their eyes are as much as sixteen inches (40cm) wide. Giant squids are real as monsters! Giant Squids are the favorite food of big sperm whales. The whales dive into the deep, dark parts of the ocean where squids live. There are battles when a big whale meets a giant squid. It wraps its long arms around the whale and squeezes. Most of the time the whale wins the fight and eats the squid. Many whales have been seen with marks of a giant squids arms on their bodies.

TOS FUN



Identify this Insect



There are so many different types. Do some research and draw 3 of these insects. Be sure to color your drawings and label them. The best entries will be published in our next edition.

It's a baby baboon! His name is Roger and he's just waking up!

Draw this latest addition to our animal kingdom and list 10 baboon facts. The best drawings and research will be selected.



Here's our new colt.

He hasn't got a name yet. Send in your suggestions and we will choose from your

Mother and baby look-alikes!

WORD SEARCH FISH find 15



s	b	a	s	s	m	c	p	r	q	o	p
a	x	f	h	u	a	a	i	s	k	r	e
l	b	l	a	s	c	t	k	r	a	q	r
m	w	o	d	t	r	f	e	y	z	c	c
o	t	u	n	a	e	i	h	k	n	a	h
n	r	n	y	l	r	s	s	h	a	r	k
u	o	d	e	a	e	h	w	c	v	p	q
z	u	e	o	p	l	y	k	b	o	f	f
o	t	r	s	i	n	b	m	k	l	d	z
e	w	p	h	x	c	r	o	a	k	e	r



A baby owl that was found near the school is held by the HOD Science, Mrs. Okoye

continued from page 1

In the making of drums, plastic sheets were tightly wrapped over the tops of bowls and secured with rubber bands. They took note of the fact that nonporous covers that can be stretched taut are better sound conductors since porous materials trap sound and don't vibrate as well.



TOS Music Makers

Shakers and scrapers were made from aluminum cans and other containers, sandpaper and homemade sticks. They are aware that sticks or blocks of wood add percussion to music. The string instruments were made using rubber bands, boxes, fishing wire, dental floss and thread. Rubber bands adjusted to create different degrees of tension were wrapped around hollowed-out boxes. The wind instruments were made with different shapes and sizes of glass bottles. The students capitalized on the concept that the more air in the bottle, the deeper the pitch.

The students found this particular activity quite interesting. They played different tunes with their instruments and even sang to the listening pleasure of Mrs. D.L. Mohammed and the TOS teachers. Music is, indeed, indispensable to life, so, play on kids!

TOS Newsletter
Designed and in Kaduna, Nigeria
www.essenceschool.com
June 2002

This inter-active newsletter is dedicated to those who love science and aspire to become scientists. It is also meant to teach appreciation of the impact of science and technology on our world-past, present, and future.

Editor-in-Chief
Dolores L. Mohammed
HOD Science and TOS
Chinwe Okoye

Contributors

Bassey Ukem
Stella Anavhe
Ada Nwabufo

TOS KIDS

Guest writers



Maryam Awaisu, primary 6



Abdullahi Oyewale, primary 6



Senior secondary students making transparent soap in the science lab