

The Sandwatcher

The Voice of UNESCO's Sandwatch Project

www.sandwatch.org



What Sandwatch Means to Me by Allana Stanley, Trinidad & Tobago

When some people hear the word Sandwatch, they may think that it's something boring. Well, let me prove you wrong. Just read my story

My experiences with Sandwatch have been terrific. There are many exciting activities that you get involved in when you are part of that little word "Sandwatch." I never knew that there are so many things one can do at a beach. It's amazing. I was surprised when I first did it.

One of the activities that I am involved in is collecting data on wave intervals. When my teacher first told me about it, I said to myself, "that's boring." Was I in for a rude awakening. Boring? "Ha!" It was the first time I got to use a stop-

watcher comes to class, and he asks me questions, he is amazed that I can give such a quality reply. When he asks how I know that, my simple answer is "Sandwatch." Seems like I am teaching him now.

Sandwatch is very educational. I am now a different person thanks to my teachers from the school where it all started, the Mayaro Government Primary School. Since its inception, we all have had great times. I can never forget the varied experiences from visiting Tobago, Buccoo Reef, Little Tobago, St. Vincent, Bequia and St. Lucia. These memories will never be forgotten. Who can forget hiking up the Soufriere Volcano in St. Vincent, or going up the Gros Pitons in St. Lucia? They were just out of this world.



Some of the Sandwatch Team from Mayaro Government Primary School, Trinidad

Since my first experience, many mathematical problems have become clearer to me and I now have begun to enjoy Maths, simply due to my experiences in Sandwatch. Sandwatch has not only helped me in Mathematics, but I have a better appreciation for and a greater understanding in Geography and Science. Believe me, Sandwatch has helped.

Sandwatch has made me wiser. When my Geography

Again, to all who have heard about Sandwatch, or have just read my "tit bits", my advice to you is to be a part of the experience. It's wonderful. It will change your life and grant you opportunities. Your view of the beach will change. Let us all work together to save our environment. I am doing my part, are you?

Welcome Sandwatchers!

This is the first International issue of "The Sandwatcher", a regular newsletter designed to highlight and inform Sandwatch participants world wide of items of mutual interest to the project and related subjects.

All Sandwatchers are encouraged to submit articles on their projects to us for future publication.

Please send your ideas and submissions to pdiamond@sandwatch.org

We would love to hear from you!

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Sandwatch Launches Website: www.sandwatch.org

In our ongoing efforts to improve feedback and communication with and between the Sandwatcher community globally, UNESCO is pleased to announce the launch of an official Sandwatch website.

Opened in April 2006, the new website has dedicated "national pages" for each current country participant, with more being added all the time.

Sandwatchers are encouraged to view and customize their own national pages by submitting suitable photos, data, student artwork, midi-music files and even short video clips.

The new website is updated on a weekly basis so anything submitted will be viewable on-line almost immediately.

The website is designed to keep Sandwatchers informed of recent and upcoming events, meetings, contests and other items of interest. We have also included a "teacher forum feature" to facilitate easier communications between educators.

To submit material to the site, please contact Mr. Paul Diamond at pdiamond@surfbvi.com

Sandwatch on Zanzibar, Tanzania



Mr. Khalfan Hassan and the Chukwani Environmental and Coral Club (CECC) & Sandwatch Team on Zanzibar.

Tanzania is known as a land of natural beauty and unspoiled wilderness. Behind this public façade, however, lies the ever-growing problem of environmental degradation. A prime example of the effect of increasing environmental pressures can be seen in Zanzibar. While home to some of the most stunning beaches and coral reefs on the planet, Zanzibar's coastline and marine life are under serious threats.

Over-fishing, destructive fishing practices, pollution and sedimentation are some of the issues that need to be addressed. There is an urgent need to create public

awareness about the need for sustainable management of these precious resources.

Organizations and schools in Zanzibar are working together to raise awareness in environmental protection. **Chumbe Island Coral Park** is one example of a project that provides an opportunity for students and teachers to gain hands-on experience in environmental education. Schools that have visited the island have been inspired to set up Environmental Clubs. **Chukwani School Environmental Club** is a group of enthusiastic students and teachers who have initiated environmental activities within their

school grounds as well as their community environments. The Club has recently started participating in the Sandwatch project.

Projects such as Sandwatch give a great opportunity for Zanzibari students and teachers to work together with other schools worldwide, sharing ideas and experiences on their environmental activities.

Mikala Peters
Marine Biologist
Chumbe Island Coral Park
www.chumbeisland.com

Mayotte (Indian Ocean) Joins Sandwatch



Teacher Pascale Gabriel and her Sandwatch Students

Wednesday, April 26th
Half past two pm, near the college of Koungou,.

The weather was sunny and hot (it was during the wet season), we left school after our lessons to start a new project with our English teacher, Mrs Gabriel. The name of the project is Sandwatch. It took us about 10 minutes to walk to the beach.. Some people call the beach Barakani and others say it's Tanaraki. On the map of Mayotte you can read Beach of Koungou. Funny, isn't it ?

The sea was calm and there were no waves. The tide was high. There were four teams: The first one was composed of Ounwati and Faïra.

They measured the size of the beach.

The second was composed of Nadia, Idiramadane, Yohann, Naïmé, and Maxime. They studied the animals that could be seen on the beach and around the beach.

The third group was Fatoumia. She looked for trees and flowers on the beach. The fourth team was represented by Yasmine and Youssra. They saw and counted the debris and litter that was on the beach. We'll write all the details of these observations in another report. After an hour and a half, we had a deserved rest and we could relax under the shade of the trees, we felt like bathing but our teacher said it was forbidden !

We were disappointed since the beach looked very safe, no high waves and beautiful weather, no wind at all ! Yasmine cut a tree on one of the baobab and we tasted it : a bit strange, spongy and not too much sweet! Our teacher said that, in some African countries, they call it the Monkeys' bread. Although we found the beach quite dirty and rather polluted, we really enjoyed ourselves, we didn't feel like working at all, it was exciting and interesting, a sort of "live" lesson. We are looking forward to going back ! Mrs Gabriel said we were going to do a lot of different activities.

By 3e1 pupils, college of Koungou

Sandwatch in The Cook Islands



Cook Island teachers test out some Sandwatch methods on their local beach

Kia orana and greeting to you all from the Cook Islands.

We have been having lots of fun with the Sandwatch programme. The Curriculum Advisory Unit created a short workshop of activities from the programme that suited the environment of our schools. We also translated some of the worksheets into Cook Islands Maori. We have visited each school and done the activities with the teachers.

Now when teachers are planning their units, they can include activities from the Sandwatch programme. Most teachers will practice the activities on the school grounds first e.g. transect lines

across the field and then go onto the beach site.

Teachers have included Sandwatch activities in units on

- landscapes by looking at erosion and weathering
 - recycling by looking at the amount and type of litter at the beach
 - tourism – by seeing how and when the beach is used for different activities.
 - Ecosystem studies by using the mapping, transect and composition activities to find out about the place they are studying.
- We have found it best just to choose the bits that suit us – this means we don't necessarily do all

the activities in every unit but just the ones that suit what are students are learning. It has been very successful with the students as it is their work and they own it and can talk about it to others. They enjoy studying their own environment rather than reading about someone else's.

We hope you are all having fun with Sandwatch too. We look forward to sharing ideas through this newsletter and finding out what students in other countries are doing.

By Gail Townsend, Curriculum Development Unit, Ministry of Education, Rarotonga

Bringing Islands Together with the Small Islands Voice Youth Internet Forum

The Small Islands Voice Youth Internet Forum provides a place where students from small islands in the Caribbean, Indian Ocean and Pacific regions can discuss with each other issues relating to their daily lives. This year (2006) topics range from ecotourism in the Bahamas to the preservation of the Creole culture in Seychelles and Dominica, and from after-school activities in the Cook Islands to promiscuity among teenagers in St. Kitts and Nevis. The article on ecotourism has been very popular and so far there have been more than 30 responses.

"We live on a 6 mile long island in the Abaco chain of the Bahamas. The environment is all we have to

rely on in our islands. As the inheritors of what little bit is left, we must insure that we learn to protect and manage our resources". (Students from Hope Town School, Bahamas, 2006, <http://www.sivoyouth.org/?read=1>)

The forum is divided into a section for younger students (12 years and younger) and a section for older students (13 years and older). The forum is very easy to use and it is "live" – as soon as the students post their responses they appear on the forum – however, the forum is protected with special passwords, which are given to the schools on request. Teachers in some schools have incorporated the forum into their

classes on language skills, IT, social studies.

The forum can be viewed at www.sivoyouth.org (with user name view and password only). If your school is in a small island and you would like to have your students take part in the forum, please contact Gillian Cambers (gilliancambers@aol.com).

Small Islands Voice has many other activities besides this youth internet forum, so be sure to visit the website at www.smallislandsvoice.org

By Gillian Cambers
Small Islands Voice Coordinator
Puerto Rico



Sandwatch on Lake Victoria, Kenya

Lake Victoria is the largest lake in Africa, the source of the River Nile, and the main fresh water supply of 10's of millions of people, is under severe environmental pressures. For this reason Sandwatch is pleased to expand the project into the field of fresh water ecology.

Hello Everyone.

We at Kisumu Day High school in Kenya are happy to have been accepted into the Sandwatch family. We began an Environment and Conservation club after seeing the environmental degradation of Lake Victoria.

The Lake Victoria clean up is our pet project where we are sensitizing the youth and the general public to become environmentally aware by producing less waste through practicing the credo of Reduce, Reuse, Recycle. Buy products that are; less toxic, contain less packaging and are in reusable containers. Maintain and repair products rather than throwing them out on the Lake Shores, When we read the Sandwatch manual, aims and objectives, we knew at once that joining it would link us to schools, teachers, and students who are like minded with us. Sandwatch will also provide us

with the opportunity to share our data, observations, photos and ideas with other Sandwatchers.

The Sandwatch Project is now our window to the environmental world. We shall keep all of you updated through the official Sandwatch website of our concerns and thoughts of keeping the beaches of Lake Victoria clean and safe. We are now your latest Sandwatch family.

By Peter Amunga
Teacher, Kisumu Day High School, Kenya



Teacher Peter Amunga and his Sandwatch students on the shore of Lake Victoria, Kenya

Regional Sandwatch Fair to be held on Trinidad, Nov '06

Attention All Caribbean Sandwatchers!

You are invited to attend The Regional Sandwatch Fair

Where: Mayaro Government Primary School, Pierreville, Mayaro, Trinidad and Tobago.

When: November 6th-8th 2006

Purpose: Provide a platform to showcase and expand the Sandwatch approach within Trinidad & Tobago and the wider Caribbean

Region. Sharing Sandwatch experiences among Caribbean islands and providing a platform for students/youths to exhibit their scientific skills, attitudes and knowledge. Promoting a Culture of Peace through regional learning and exchange, creating a greater awareness of conservation strategies for our coastal environment. Promotion of Sandwatch and the preparation of proposals for its improvement

Launch of the Small Islands Voice (SIV) in Trinidad and Tobago

For further details contact Contact: Mr. Andy C. Paul at acpaul2@hotmail.com



Miss Allana Stanley,
Trinidadian author of "What Sandwatch Means to Me"



Some of the Sandwatch Team,
Virgin Gorda, in The British Virgin Islands



*Coliform Test on Savannah
Beach is positive...yuck!*

Virgin Gorda, British Virgin Islands Joins Sandwatch



On Sunday 7th of May as part of our schools **Sandwatch Project** six students went down to the Savannah Bay Beach with our teacher to conduct a few experiments on the environment.

We do Sandwatch to learn about our beaches and how it changes over time, and to see if the beach is good and healthy or is being hurt by pollution or other stuff.

We have to do all the experiments and measurements on the beach once a month for the next year! Schools all over the world work on Sandwatch to study their beaches as well. We all got to the beach at 1pm and I met three of my friends who work for the school newspaper as well. We measured the beach in three spots to see what the high tide mark was, so that we can see if the beach is getting bigger or smaller over time. I got a lot of burs in my foot doing the measurements and everybody laughed at me. The most exciting part of the experiment was where we dyed the water purple to measure the direc-

tion of the waves and currents, and we got dye all over our pants.

Other experiments we did were measuring **wave heights** and **direction**, as well as water and air **temperature**. We took some sand sample that we later looked at under our digital microscope, and found that the beach is all made of crushed shells and coral. We

We also did a **coliform test**, which is a bacteria that comes from sewage and can make people really sick. It can also kill coral reefs as well. It showed high levels of coliform in the sea water! This means that somehow a lot of sewage is getting into to Savannah Bay, but we don't know how yet.

So we called **Ms. Shannon Gore**, a marine biologist at the **Ministry of Conservation & Fisheries** to tell her about what we found.

She came up to the school to see us, and told us that she will send some over to Virgin Gorda to do more tests on the water. She said that sewage shouldn't be in the water at Savannah Bay. We hope other BVI schools will get involved with the Sandwatch Project and look at their beaches.

You can see all the stuff we found (and lots of photos) at our **Sandwatch BVI** pages at www.sandwatch.org/sandwatch_field_trip.htm

By Mario Reid, Grade 6



Robinson O'Neal Primary School Students show off their new Sandwatch Equipment

even helped our teacher do a lot of tests on the seawater to test for things like (the levels of) **phosphates** and **nitrites**, as well as **pH levels**. These were all normal.

The basic equipment required for Sandwatch can be bought at most hardware stores, however if special equipment is required (chemical testing kits for example) they can be purchased from a variety of online suppliers, such as www.forestry-suppliers.com

The Maldives: The Latest Sandwatcher



Measuring beach width at Eydhafushi

Beach erosion and the dumping of garbage on beaches are among the many environmental problems being faced in the Maldives. It is against this background that Sandwatch has recently started in the Maldives, with the goal to provide a cross-curricular, hands-on, practical approach to environmental education that will equip students and teachers, as well as their communities, with the necessary tools to cope with such environmental problems. On 26-27th May 2006, a Sandwatch workshop was held at the Baa Atoll Educational Centre on the island of Eydhafushi. Twenty-eight teachers from primary and secondary schools in 13 different

islands took part in the workshop, which was supported by the Atoll Ecosystem-based Conservation Project (Baa Atoll) and Live and Learn Environmental Education.

The teachers enjoyed learning about the Sandwatch approach and experimenting with the methods, particularly measuring the waves, longshore currents and sand composition and concluded that Sandwatch had potential for use within the school curriculum, as well as with school environmental clubs, and that furthermore Sandwatch was a tool for raising community awareness. "Sandwatch provides knowledge and under-

standing that students can apply in their daily lives" and "Really it is a very interesting idea. We can make students active and they can become aware of the environment" were among the comments made by the teachers at the end of the workshop.

Plans are now underway to begin an active Sandwatch programme in Baa Atoll. This could become a pilot for schools in other atolls throughout the Maldives.

Adulla Mohamed, Athira Auli, Sujau, Ministry of Environment, Energy & Water, Maldives; Gillian Cambers, Puerto Rico

Sandwatch In The Bahamas



Hello Sandwatch Friends,
We are excited to take part in the first Sandwatch newsletter. Great idea!

We have been involved in both Sandwatch 1 and Sandwatch 2. Our school was very proud to win second place (in the primary division) for the Sandwatch 2 Competition. We also really enjoyed "meeting" so many of you on the internet in the Small Islands Voice net.

Our involvement with Sandwatch was shaped for us by the (too!) many hurricanes that hit our 6 mile long island in the past 5 years. Our dunes and reefs were

badly hit. We helped replace our dunes with sea oats and surveyed tourists and locals about their reef knowledge. We produced a brochure to help people enjoy our reefs while being good stewards.

Lately, we have worked on a mangrove restoration project. It involved going out into the mangrove swamp and actually removing (this was difficult at first for all of us who try to save them!) mangroves in a choked wetland area.

Almost instantly after we cleaned out the area, water and fish started coming in. It was a smelly, muddy day but really worthwhile. The next step of the project will be

for us to catch some of the fish there now and using the telemetry method, very carefully place a chip into the fishes stomach cavity, close the area and release the fish. Then they can be tracked.

Everyone have a environmentally active summer! See you on the net next fall!

Aly, Laura, Mauria, Bronson, Lance, Ben, Noah, Shawn, Juan, Ashton, Ricardo and Roddie-- Grade 5 & 6 and their teacher

Mrs. Candace Key
Hope Town School--Hope Town, Abaco, Bahamas



Teacher Candace Key and students help to restore local mangrove swamp

St. Vincent & The Grenadines



Our project for the Community Sandwatch Competition involved cleaning and restoring the area around the Jeff Gregg Drain in the island of Bequia in St. Vincent and the Grenadines. This drain was frequently blocked by debris causing a major health problem for the residents of the community.

This year, after receiving numerous complaints from villagers about the stench coming from the Jeff Gregg Drain rehabilitation site, Lucille Grant, member of the

Fisheries Division in St. Vincent, and Joanna Stowe, coordinator of the Sandwatch-Small Islands Voice group, visited the site on Tuesday 25th May 2006. We collected water samples from three different locations in the area believed to be highly contaminated thus making it poor for fishing, bathing or any kind of use.

Water samples were collected and sent to the fisheries lab in Kingstown to be tested. Based on the result, it's the hope of Sand-

watch to post 'No Bathing' signs in the area to help prevent the outbreak of diseases.

Also, with the aid of the Fisheries Division, Sandwatch hopes to host educational sessions with residents of the area to sensitize them on the dangers of polluting the water, bathing in it and also demonstrating how tests are carried out on water samples.

Joanna Stowe, Sandwatch-Small Islands Voice group, Bequia, St. Vincent and the Grenadines



Teachers & Students work together to clean up trash and unblock drains

Dynamics of Anse Kerlan Beach, Seychelles



Anse Kerlan beach, on the island of Praslin in Seychelles, has been for a long time under the attack of wave erosion, especially during the South-East Monsoon. Following the December tsunami in 2004 the situation has worsened, so much so that some of the Praslin Secondary School teachers living in that area decided to move out since they felt that now more than ever they were at the mercy of the mighty sea.

The Small Islands Voice Youth Group, being a group, which is eager to discover new things, and who want to contribute to the development of our community, put what we learnt at school in prac-

tice, and decided to carry out a mini-project in this area. The aim of the project was to collect information to assess the effect and rate of erosion. We did this at three sites along the area of study. The tsunami has helped to change the gradient and shape of the beach and to make what were once grass-covered yards in front of the houses in the vicinity, areas completely covered by great depth of sand.

We collected as much information as possible about our beach. Based on our conclusions we recommended to the Ministry of Environment and Marine Resources that (1) they carry out a more de-

tailed study; (2) the Small Islands Voice Youth continue their study; (3) more trees be planted to hold the sand; and (4) that the present system of groynes should be modified and that underwater stabilisers be constructed. (Underwater stabilisers are geotextile tubes, filled with concrete or sand, and placed underwater perpendicular to the shoreline. They are designed to help to reduce wave energy and turbulence, thus making the area calmer).

By Ms. Anabelle Hoareau,
Praslin Secondary School,
Seychelles



Anse Kerlan Beach, The Seychelles

Sandwatch on The Red Sea, Israel



"Projekt Metsyanim" students take Sandwatch measurements on the shores of the Red Sea

Eilat is situated in a very 'strategic' spot. Meaning to say that due to the Syrian-African Rift – a crack in the crust which starts off actually in Turkey and makes its way to the Victoria falls, we have here the northern most coral reef in the world. It may not mean much to everyone, however it does to us since that means that so many of 'our' species here are endemic, you won't get to see them anywhere else no matter how hard you try. This also means that until recently this was the most diverse coral reef in the world. When swimming for a hundred meters, you had the highest chances here of seeing different species whether it be fish or corals. As one can notice, Eilat is

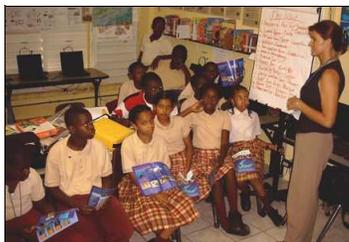
situated in a junction of countries (look us up in the map!) where one can see four countries so very easily. Jordan has 16 miles of shore-line, Israel has barely eight, and Saudi-Arabia and Egypt have a very nice piece too, but what we're trying to say is that junctions by nature are a place where everyone wants to make a stand and nature's always the one to pay the price. On these small strips of shore, one finds it hard to fish for the original beach because it is mostly covered by parking lots, shopping malls (*homo shoppiens*), huge hotels and so forth. The beach here or whatever's left of is not sandy. It is composed of what is called 'beach-rock' which is a conglomerate of magmatic

rock coming from the mountains plus calcite which cements it all together. It is very beautiful.

Even a cursory review on the internet reveals that the unique Red Sea Reefs are under a myriad of pressures, including urbanization, dredging and land filling. Plus the building of hotels, desalination plants, oil refineries and other industrial structures. By having my students take an active roll though Sandwatch in studying and monitoring our little corner of it, hopefully we will be able to make a difference!

Dan Ofri, Projekt Metsyanim, Eilat, Israel

Finding Expert Advice for your Sandwatch Project



BVI Marine Biologist (right) Shannon Gore talks to ROMPS Explorer's Club Students about her job and local environmental threats

There is never a dull moment being a marine biologist for the BVI Government. One day I might be reviewing an environmental impact statement for a new development or monitoring the health of coral reefs and the next day I might be out catching and tagging sea turtles. But one of my favorite activities is visiting schools to give presentations on the environment and how to conserve it. Kids inevitably ask the best questions like how do we stop global warming and what can we do to ensure the sustainability of the island? The kids also seem to know more than most adults when it comes to conservation such as understanding what happens when mangroves are cut

down or what happens to coral when the water becomes too hot. It's also really great to see how kids are involved with environmental issues so I was pleased to hear how kids at the Robinson O'Neal Primary School became involved in the Sandwatch project. I'm hoping other schools in the Territory might want to become involved especially since we have so many beaches that are not currently monitored. It would not only make my job easier but it is such a great way to involve students with hands on experience working in the field. It is also a practical opportunity to work with local authorities in gathering data, especially when resources are limited.

Local experts in marine biology or conservation are available in almost all communities, and they are usually only too eager to help students study the local environment. So please ask around and give them a call. You may be surprised by how much help and advice they can provide.

So to all the kids involved with Sandwatch, keep up the good work!

**Shannon Gore
Chief Marine Biologist
British Virgin Islands, Dept of
Conservation & Fisheries**

Sandwatch on Nevis



Nevis Sandwatch student, Jervan Swanston, records data on Pinney's beach, Nevis

Lyn Jeffers School is no stranger to the oceans as they have participated in the Ocean Conservancy's International Coastal Cleanup for the last five years. So when Mrs. Knorr asked the Form 3 class would they like to join UNESCO's Sandwatch program they all replied with an enthusiastic "yes." The class of ten students chose Pinney's Beach because of its close proximity to their school. It is also the island's main tourist attraction. On May 12 they completed several of the Sandwatch activities by dividing themselves into groups. They sketched the beach, observed different activities on the beach, surveyed beach users, measured

and recorded beach debris, cleaned the beach, observed common plants and animals, monitored the beach for turtle nests, and collected some shell specimens to catalogue. They also tested the water in the Pinney's Lagoon. The temperature at 1:45 was 28c, biochemical oxygen demand was Oppm, the PH was 6.9, the nitrate registered an amber color which was not on the chart and the water had strong evidence of coliform. They returned on June 12 and completed the same activities noting the differences. Two differences were the appearance of a wooden bridge over the lagoon that had

been washed out by heavy rain in May and the sand was visibly higher in front of the lagoon. The water tested much the same and the litter on the beach was about the same as well, with beach visitors leaving most of the litter. Students have expressed a desire to continue the exercise through the summer.

They will be expanding the activities to include sand monitoring and recording information on the computer.

Miriam Knorr, teacher of English, Literature and Geography at Lyn Jeffers School, Charlestown, Nevis

Sandwatch Around The World!

Sandwatch is a truly global project, with schools in 30 countries participating



Trinidad Sandwatchers also study sea turtles (This leatherback turtle is laying eggs, June '06)



Mayotte students conduct their first field trip



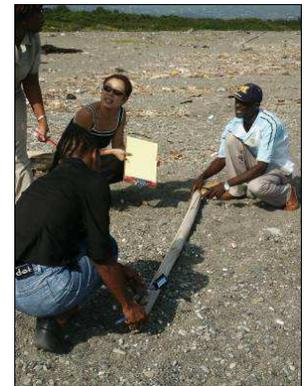
Sandwatch Palau students noted serious beach erosion



Measuring beach width, Suva, Fiji



Nikao Maori School Students, Cook Islands



Making a bamboo wave pole at Port Royal, Jamaica



Ms Katie Joseph from the Bahamas displaying a 'beach debris pizza'

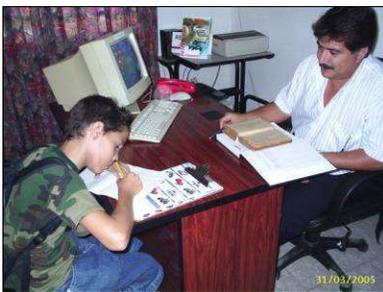


Remember, studying the environment can be fun!

Sandwatch Team, Virgin Gorda, British Virgin islands



Chukwani School Sandwatch students plant mangroves on the shores of Zanzibar to protect the coral reefs from soil erosion



Student from Don Mariano Marti Navarro School, Cuba interviewing a local government official about the condition of the beach for their Sandwatch competition entry, 2005



Sandwatch students taking measurements on the shores of Lake Victoria, Kenya



Teacher Dan Ofri in Eilat Israel shows some of the extreme desert conditions by the shores of The Red Sea, where his class conducts Sandwatch

JEAN-MICHEL COUSTEAU'S OCEAN FUTURES SOCIETY

A Message From Jean-Michel Cousteau



AMBASSADORS OF THE ENVIRONMENT PROGRAM PARTNERS WITH THE ROBINSON O'NEAL MEMORIAL PRIMARY SCHOOL, BRITISH VIRGIN ISLANDS AND THE UNESCO SANDWATCH PROGRAM TO TEACH THE NEXT GENERATION ABOUT NATURE AND SUSTAINABLE LIVING

We all know the ocean is being impacted by a bewildering number of insults. Seventy-five percent of fisheries are either fully exploited or exhausted. 88 of the 126 marine mammal species are at risk, 90 percent of large ocean predators have vanished, coral reefs are dying and coastal habitats are being destroyed at an alarming rate. The ultimate solution to these critical issues is not to engage in an eternal mode of crisis management, searching for quick fixes to each problem as it arises, but to avoid them in the first place. This requires embracing a completely different perspective of our relationship to the ocean.

Jean-Michel Cousteau's Ocean Futures Society with Dr. Richard Murphy has created an outdoor education program for kids called Ambassadors of the Environment. This program is being implemented in the British Virgin Islands in partnership with the Robinson O'Neal Memorial Primary School and **UNESCO's Sandwatch Program**. Dr. Murphy states, "We are pleased to find such enthusiasm among the students at the Robinson O'Neal School. These students not only learning about their connection to the ocean but they are taking positive action. Their involvement in the **Sandwatch Program** is putting their newly acquired knowledge into practical use. Ultimately, I believe this generation will do a much better job of ensuring a sustainable future than previous generations. We need more young people who care and who are willing to make a difference. We are honored to be collaborating with these students."

For more information about Jean-Michel Cousteau's Ocean Futures Society and the Ambassadors of the Environment program please visit the Ambassadors web site at www.aote.org. They are looking for new sites and partners from around the world.



Dr Richard Murphy, Director of Science & Education for The Jean-Michel Cousteau Ocean Futures Society, takes sometime to talk to students of the Robinson O'Neal Primary School, Virgin Gorda, British Virgin Islands, on his marine

Digital Microscopes Designed for Kids



New low cost (\$80 USD) Digital Microscope, designed especially for children to use.

We are having fun with our classes new digital microscope! Our teacher bought it on the internet and had it shipped to our school. The microscope connects to a computer or laptop so you can see everything on the screen and it can connect to a projector so that the whole lab can see what the microscope is seeing.

The microscope can **magnify 10 times, 60 times and even 200 times** bigger than they really are! It can even take digital photos of what is being looked at to print or

email them for scientists to look at. Plus you can pick up the microscope out of its stand and use it for looking at things that won't fit onto a slide, like your ear. We used the microscope to look at students skin with Ms. Cregue's Gr.3 class. They looked at student's pores, hair and tongues, and even the teacher's eyeball!

We are also using it for **The Sandwatch Project** to find out what beach sand and other stuff is really made of.

If you want anymore information go to www.playdigitalblue.com were you can get the activity guide, sample experiments and more fun stuff, maybe you can get a microscope to!

By **Brinique Richards, Grade 5 Robinson O'Neal Primary, Virgin Gorda, British Virgin Islands**

THE SANDWATCHER IS EDITED BY PAUL DIAMOND, BRITISH VIRGIN ISLANDS & GILLIAN CAMBERS, PUERTO RICO

A New Environmental CD Project

As part of Robinson O'Neal Primary's (in the British Virgin Islands) ongoing participating in **Jean-Michel Cousteau's Ambassadors of the Environment Project**, scheduled to take place early this summer on Camanoe Island, we have been asked to test a pilot project for them!

Dr. Richard Murphy, Mr. Cousteau's Director of Operations has asked us to help develop and test a new environmental teaching tool. Basically, it consists of a CD containing a multi-media PowerPoint Presentation, that students can customize themselves to highlight both good and bad things about their local environments. Such as adding photos of destruction of mangroves (bad), students doing beach clean-up (good). When completed, each student will receive a copy of the CD and it is planned that each schools submission be made part of an environmental contest, still in the planning stage.

Sandwatch may adopt this CD presentation concept for use with Sandwatchers globally.

If you are interested in obtaining a copy, contact pdiamond@sandwatch.org

Robinson O'Neal Primary is proud to be selected as the first school to test this new product!
Photo is the CD Cover.

