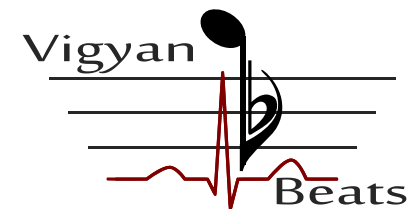




Cultivation of coconut palms is a major occupation. The fibre extracted from the husk of the coconut, called coir, is used to make floor mats, doormats, brushes, mattresses, etc. Lakshadweep annually produces 60 tonnes of desiccated (dried) coconut on average. Locals of Lakshadweep are directly dependent on their habitat for their survival as their livelihoods also include fishing, tuna canning and production of fish meal.



10th International Junior Science Olympiad

Welcome to IJSO 2013

From the Editor's Desk



Dr. C. Natarajan

On behalf of the team of Vigyan Beats, the official newsletter of the 10th IJSO in Pune, I extend a hearty welcome to India to all the students and leaders from countries far and near.

If you are visiting India for the first time, maybe you were drowned in the sounds, smells, and sights of the country on your way to the hotel. Vigyan Beats will greet you each morning at breakfast time, and be by your side as you discover more of India every day.

Through its nine issues during the event, Vigyan Beats will explore some of the richly diverse biogeographical regions of India, and the intimate connection between nature, culture and science. Vigyan is a Hindi word that means science. Beats denotes many things: Our call to join the junior science olympiad, our news beat that reports on the happenings at the 10th IJSO, the drum beat to celebrate science, and the heart beats, as the students answer challenging questions and the leaders work hard to get them ready in good time.

India, the land of hundreds of languages and tens of scripts, welcomes all your languages and scripts. To give you a glimpse of some of the Indian scripts, we will show you how the word Vigyan is (phonetically) written in some of them. We hope you enjoy the variety, and share your fun with us at Vigyan Beats. Wish you a memorable time at 10th IJSO in India!



Write to us

Your correct answer may win a prize!

One of the two types of natural islands is termed continental island. What is the other? Solve the puzzle below for the answer.

1. A major element in sand.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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2. The largest island on earth, which is not a continent.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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3. One of the most common tree found on tropical islands!

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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4. Under stressed conditions, corals may expel their zooxanthellae, which leads to whitish appearance. What is this process called?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Use the given clue to fill each row with a word. Then using the circled letters, each one only once, form a word to get the correct answer!



Write to us

@ Vigyan Beats dropbox placed at IJSO Help Desk, hotel VITS

Vigyan Beats includes some interesting activities for its readers. Student readers can do them on their own, or in teams. A team can have members either from same or different countries. Take a sheet of paper from the Help Desk, write your answer, and drop it in the box. Remember to write your name(s), and country(s). The correct answers will be entered in a lucky draw. You could win some cool stuff! Write to us also about your experiences of the day! We will try to publish some of these in the following issues or put them up on the bulletin board! Happy sharing!

Leaders can share their experiences by writing to us at: vigyan.beats@gmail.com

Image source: Saravask, Rursus, Valadrem, Linuxerist, Kannanshanmugam, Thamizhparithi Maari, Robert Wetzlmayr, Berliner Schildkröte from commons.wikimedia.org

Editorial team

Chitra Natarajan, Shradha Ghumre, Rafikh Shaikh, Geetanjali Date, Adithi Muralidhar, Manoj Nair, Subeer Kangsabanik



विज्ञान विज्ञान ವಿಜ್ಞಾನ বিজ্ঞান விக்யான் വിഗ്യാൻ विगिआन विग्यान
Marathi Odiya Kannada Bengali Tamil Malayalam Gurumukhi Urdu

India is a country of many living languages and several scripts: Marathi is the official language of Pune city and all of Maharashtra State. It is written in the Devanagiri script, as is Hindi, an official language, and several other Indian languages, including Nepali which is also the language of our neighbour, Nepal. The southern states use Dravidian languages and the Brahmic family of scripts, for example, Kannada in Karnataka State, Tamil in Tamil Naadu, Malayalam in Kerala. Odiya script is used in Odisha State, Bengali in West Bengal. Maithili and Meitei are used in the North East, while Gurmukhi is the script for writing Punjabi.

Today @ IJSO

Arrival - Registration - Dinner



This is a free day for you to explore the city. Please talk to your team guide if you want to go around. Please note the meal timings from your schedule if you don't want to miss the meals at your hotel.

Arrival - Registration - Dinner - Executive Committee meeting - IB meeting

This is a free day for you to explore the city. You may contact the LOC office in your hotel for assistance. Please note the meal timings from your schedule if you don't want to miss the meals at your hotel.



Your buddy @ IJSO: the student guide

The Indian guide for your country's team must have received you on arrival. Your guide is your buddy, your companion during the IJSO. These guides will make sure you are comfortable, and assist you in sorting out any issues you may face. Please feel free to seek their help at all times. Student guides will help you get to your respective transport vehicle, and venue, in time. You can seek their help to choose your food on the menu, and learn about what the recipes are made from. They may also be able to tell you about the places you visit, and about India. We hope these associations become friendships that last well beyond the IJSO times!



Student Guides and Organisers Meet

Getting ready for IJSO 2013



Your IJSO avatar



Movers and packers



The IJSO kit



Vigyan Beats @IJSO



Your buddy @ IJSO



Namaste Johannesburg

Many Happy Returns of the Day!
mwe nay mingalar pa



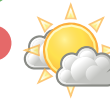
December 2
Osama
Wai Yan Myo Htet
(Osama)
Myanmar



Today's weather

Sunrise: 06.52AM

Sunset: 05.57PM



Max Temp: 30° C

Min Temp: 20° C

Rain or thundershowers would occur in some areas.

Source: www.imdpune.gov.in

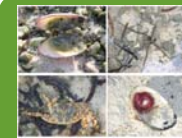
Zoom In

If we zoomed in with a lens on the fabric of life around us, we would find many strands interwoven to form the colorful web of human lives. Focusing on a few places in India that typify its diversity, we would like to pick up three strands: nature, science, and culture. It is fascinating how the three strands intertwine and sustain each other. In the strand of nature, we will explore places from some of the major biogeographic zones in India, like the semi-arid or the trans-himalayan zones. We will look at some facets of the diverse cultures of people in these zones, their food, shelters, livelihoods and festivals, as well as the science - biology, chemistry, physics and mathematics - that pervades all these.

And we will happily hand the lens over to you. Take it back with you and explore your own place in the same way. After all, "the real voyage of discovery lies not in finding new landscapes, but in having new eyes!" (Marcel Proust)

Islands of India

The Indian islands are Lakshadweep in the Arabian Sea and the Andaman & Nicobar in the Bay of Bengal. Lakshadweep consists of 12 atolls and is India's smallest Union Territory. Occupying a mere 32 sq.km, only 10 out of the 36 Lakshadweep islands and islets (an archipelago) are inhabited. Its atoll and lagoon ecosystems make Lakshadweep an ecologically sensitive region. Studies in the last decade or two have found that climate change has degraded the corals near the island. To preserve the atolls, ships are restricted to anchor away from the islands, and the passengers are ferried in motor boats.



There is a phenomenal diversity of sea weeds, echinoderms, gastropods, crustaceans, and sponges. About 600 species of marine fish are found here, while coral genus like Montipora, Pavona, Porites, Favia, Hydnothophora, etc. are common.



The poor soil in Lakshadweep is formed by fine powders of corals mixed with vegetable humus. Due to scarce vegetation, it is further eroded by wind and waves. Cement tetrapods are used on the shores to control erosion. However, they obstruct marine turtles, who come ashore to lay their eggs.

There is water, water, everywhere... but hardly a drop to drink. The monsoon waters each year percolate through the drained and permeable porous sandy soil to recharge the limited amount of ground water, which cannot be tapped effectively. Desalination, reverse osmosis and rain-water harvesting have to be adopted. The commonly found roofs of galvanized iron sheets in Lakshadweep help in harvesting rain water for drinking.