



# MARINE SECONDARY SCHOOL EDUCATION PROGRAMME

For Secondary 1 to 7 students

October 2011 to July 2012

S3

Hoi Ha Wan Marine Park is one of the first designated Marine Parks in Hong Kong. The establishment of the Marine Life Centre in the park provides access to a priceless resource for enjoyment and education, as well as an ideal place to enhance students' learning experiences. Through interesting activities, student should be able to enhance their understanding to issues about marine environment and fisheries resources

## A. EDUCATION PROGRAMME

Marine Secondary School Education Programme aims to provide hands-on experience to the students to explore the marine environment, as well as to learn more about the importance of marine ecosystem, its threats, such as climate change and its sustainability through an interactive approach. **THREE PROGRAMME OPTIONS** have been developed to suit students' different levels and learning needs.

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| <b>1. Marine Discovery (For Secondary 1 to 3)<sup>#</sup></b><br>A centre-based programme covers different aspects of the marine environment, such as physical features, coral communities and associated marine life. Students will be able to understand and explore the wonders of the Hong Kong's underwater world.   |
| <b>2. Who wants to be an Oceanographer? (For Secondary 4 to 7)<sup>#</sup></b><br>A centre-based programme provides practical 'hands-on' experience of marine science. Activities include simple measurements on air and sea climates, visibility and salinity of seawater as well as observation of the plankton which helps the students to understand the relationship between the physical features and the complex marine ecosystem. |
| <b>3. Who wants to be a Coastal Ecologist? (For Secondary 4 to 7)</b><br>Students will be able to investigate the intertidal environment through a series of field studies* focusing on the distribution and abundance of life in various intertidal habitats, such as rocky shore, sandy shore or mangroves (depends on the time available). <i>(Please note that this programme will be carried out during low tide.)</i>               |

<sup>#</sup> This programme equipped with "online learning" component. Teachers and students are required to go to the e-learning platform before visit to facilitate learning.

Marine Discovery: <http://apps.wwf.org.hk/marinediscovery/eng/>

Who wants to be an Oceanographer?: <http://apps.wwf.org.hk/oceanographer/eng/>

## B. EDUCATION APPROACH

The programmes are conducted in an interactive approach, through a wide range of activities such as simple measurement on the physical environment, marine life observations and identifications which are either conducted at the Marine Life Centre (programme options 1 & 2) or at the intertidal area in the Marine Park (programme option 3). The programme will include an hour-long coral observation tour by Glass-bottomed Boat\*\*.

**Related information can be downloaded from WWF Schools and Outreach Education Programmes website**

< <http://www.wwf.org.hk/en/whatwedo/education/schoolsoutreach/> >

## C. BOOKING INFORMATION

- Date of Programme:** Weekdays, except Wednesdays and Public Holidays
- Time for Programme:** AM Session (09:30 to 13:30 hrs) **OR** PM Session (12:30 to 16:30 hrs)
- Guidance:** WWF Education Officer
- Group Size:** **20–38 students + at least 2 teachers, but not more than 4**, must accompany with students for safety and discipline control. **Group size MUST NOT EXCEED 40.**
- Charge:** **HK\$100 per student**, the two accompany teachers are free of charge (HK\$100 per extra teacher)
- Application Procedure:** Complete the online registration and application at <http://www.wwf.org.hk/en/whatwedo/education/schoolsoutreach/secondaryprog/>

### IMPORTANT REMINDERS

- \* The on-site investigations may be subject to local conditions at Hoi Ha Wan. Please remind students to bring canvas shoes for change as they need to walk in shallow water during the study.
- \*\* If the local weather condition does not permit the boat trip, an 1-hour contingency indoor programme will be offered. NO refund will be granted.
- \*\* If there is any operational problem with the boat, the programme will last for 3 hours and a 30% refund will be granted.
- Please submit an individual online application for each programme application. Each school may apply for a maximum of FIVE Marine Secondary School Education Programmes.
- In view of the limited quota available, *all applications will be processed on a first-come-first-served basis.*
- Schools will be notified of their application result by **EMAIL**. Payment will be requested once the application is successful. If no notification received after 30 Sept 2011, please contact WWF.
- For any enquiries, please contact our Administration Officer on tel. no. 2526 1011 (choose 2 for English, then press 1, 2, 3, 1) or e-mail at [[ihsc@wwf.org.hk](mailto:ihsc@wwf.org.hk)].



## MARINE SECONDARY SCHOOL EDUCATION PROGRAMME (F.4-7)

### Who Wants to Be an Coastal Ecologist Programme Rundown

**WHO WANTS TO BE A COASTAL ECOLOGIST** is a field-based marine Education for Sustainable Development” Programme specially designed for senior secondary school students. The programme introduces basic concepts and techniques used in studying coastal habitats. Students will learn various ecological concepts by examining and identifying live marine plants and invertebrates from the seashore.

**BEFORE THE VISIT:** Teachers are suggested to read through all visitor guidelines and codes issued by WWF and AFCDC (to be sent after visit confirmation). Students should be notified about what they are going / not going to do, what to bring / dress (**Please see Attachment 2 & 9<sup>^</sup> and notify students to bring shorts and canvas shoes for change as they need to walk in shallow water**), and be encouraged to look for relevant background information from the internet. Teachers should group students into 6 teams, and dispatch the *student worksheet* to each team. (Please download from WWF website <<http://wwf.org.hk/en/whatwedo/education/schoolsoutreach/>>)

**PROGRAMME CONTENT:** The 4-hour programme will be conducted with an interactive approach through a wide range of on-site activities which will include simple field experiments, marine life observations and identification. The visit will include an 1-hour coral observation by Glass-bottomed Boat (weather permitting, see **Attachment 3 & 4**). Teachers should encourage students to use the provided *student worksheet* during the programme in order to strengthen the learning experiences.

Programme Rundown*		Location	Approx. time
1	<b>Welcome and programme briefing</b> <ul style="list-style-type: none"> <li>Registration</li> <li>Introduce Marine Park and background information on Hoi Ha Wan Marine Park</li> </ul>	Hoi Ha Village Coach Drop Off Point	15mins
2a#	<b>Life in wave-washed sand (field work at sandy shore)</b> <ul style="list-style-type: none"> <li>Determine the distribution, abundance and adaptation of marine invertebrate on a sandy shore</li> </ul>	Sandy shore area in Hoi Ha	2hr 15mins
2b#	<b>Plant in the sea (field work at mangrove community)</b> <ul style="list-style-type: none"> <li>Determine the morphology and adaptation of mangrove, and their ecological importance.</li> </ul>	Mangrove area in Hoi Ha	
3	<b>Life on rocky shores (field work at rocky shore)</b> <ul style="list-style-type: none"> <li>Determine the distribution and adaptation of marine invertebrate on a rocky shore, and the inter-specific competition among</li> </ul>	Rocky Shore area in Hoi Ha	
4	<b>People and the sea (interpretation)</b> <ul style="list-style-type: none"> <li>Introduce the lime industry in Hong Kong, relationship between</li> </ul>	Lime Kiln	15mins
5	<b>Glass-bottomed Boat Tour (coral observation)</b> <ul style="list-style-type: none"> <li>Explore hard coral communities in Hong Kong</li> </ul>	Glass-bottomed boat	1hr
6	<b>Walk back to Hoi Ha Village</b>	/	15mins
7	<b>End of Programme</b>	Hoi Ha Village Roundabout	/
		<b>Total time</b>	<b>4hrs</b>

\* **AFTER THE VISIT:** In order to reinforce students’ learning experiences, WWF provides suggested *follow-up activities* for teachers to encourage students to further investigate and have a better understanding of marine conservation issues, as well as seeking solutions, and develop positive values and attitudes, and ultimately to take actions in their daily-lives to conserve our precious marine environment. (please download from WWF website <<http://wwf.org.hk/en/whatwedo/education/schoolsoutreach/>>)

\* **Important note:** As the programme involves field activities on the beach and a Glass-bottomed Boat trip, the actual programme rundown on the day will very much depend on the local weather conditions (see **Attachment 3**) and the students’ discipline. WWF reserves the right to alter the rundown without prior notice.

# Depending on the time and tidal condition, EITHER field work at 2a. Sandy shore or 2b. Mangrove community will be selected for the programme.

^ Email the attachment to teacher-in-charge after receiving advance / full payment