

# NATURE EXPLORERS' PROGRAMME

This is a new education initiative of the Raffles Museum of Biodiversity Research (RMBR), supported by River Valley High School and the West Zone Centre of Excellence for Science and Technology and sponsored by ExxonMobil Asia Pacific Pte Ltd.



## Objectives

1. To cultivate the curiosity of science and the natural world among students.
2. To develop scientific and creative thinking in students.

## Who can participate?

Any student from upper primary, secondary school and junior colleges in Singapore. A total of 150 upper primary students and 150 secondary and JC students will be taking part in this programme.

## How to participate?

Inform your science teacher, who will register with RMBR. Email **Ms Wang Luan Keng** at [dbswlk@nus.edu.sg](mailto:dbswlk@nus.edu.sg).

Participants have to complete a series of nature-related activities, including some workshops and field trips organised by RMBR.

## When is the deadline for registration?

20 January 2009

## When is the deadline for completion of programme?

15 July 2009

## What do I do when I've completed all the activities?

After you have completed all the activities, submit your scrapbook to your Science teacher, who will submit the scrapbooks to Nature Explorer coordinator at RMBR.

## What are my rewards?

The best 15 students from the primary school category and the best 15 students from the secondary school and junior college category will be invited to take part in a 4D/3N field study camp organised by RMBR.

All participants will receive a certificate and a naturalist kit consisting of a field bag, five biodiversity guidesheets, a nature journal, a magnifying glass and writing materials.



For more details, contact **Ms Wang Luan Keng** at [dbswlk@nus.edu.sg](mailto:dbswlk@nus.edu.sg)

# THINGS YOU HAVE TO DO: PRIMARY SCHOOL CATEGORY

- 1. Create your own nature scrapbook.**
  - a. Make 2 covers (A4 size), one for the front and one for the back.
    - i. Include your name, school and class.
    - ii. Make a design for the covers with your own nature drawings, photos or cut-out photographs from unwanted magazines. The design should represent nature from Singapore.
  - b. Get some blank A4 papers (white or coloured) to form the insides of your scrap book.
  - c. Arrange the covers and papers so that you form a stack like a book.
  - d. Punch 2 holes on the left side of the book.
  - e. Thread a string or ribbon through the holes and tie it loosely together.
  - f. You are ready to start exploring nature using your own nature scrapbook.
  - g. On the first page of your scrapbook, write about yourself and your thoughts about nature.
  
- 2. Find bits of nature that represent the colours of a rainbow.**
  - a. Make sure you do not collect or damage things from nature reserves and other protected areas. Beware of plants and animals that can sting or harm you.
  - b. Sketch and colour them.
  - c. You can also stick them onto your scrapbook.
  - d. Name the things you have collected and where you collect them from.
  
- 3. Find leaves that have 1, 2, 3, 5 and more than 10 points.**
  - a. Make sure you do not collect leaves from nature reserves. Beware of leaves that have sap which may irritate your skin. You can collect leaves that have already dropped onto the ground.
  - b. Press them carefully between sheets of newspapers.
  - c. Put a thick book or telephone book on top of the newspapers.
  - d. Leave for 2 weeks or more to dry completely. If you have an oven in the school, leave them in the oven at 45°C for a week.
  - e. Paste the leaves in your scrapbook.
  - f. If possible, identify the leaves and where you pick them from.
  
- 4. Go on a nature exploratory trip (this will be organised by RMBR – check the schedules from the RMBR’s website or contact the organiser).**
  - a. Write about your visit (50-100 words).
  - b. Make a food web using at least 8 plants and animals that you have seen on your visit.
  - c. If you missed the trip organised by RMBR, you can go on a nature exploratory trip to a park or nature reserve with your friends or family.
  
- 5. Observe nature near your school or neighbourhood.**
  - a. Write about a plant or vegetation that you have observed. Sketch it if possible.
  - b. Observe the behaviour of an animal. Sketch and describe it.
  
- 6. Take part in a museum workshop (this will be organised by RMBR – check the schedules from the RMBR’s website or contact the organiser)**
  - a. Write about your visit to the Raffles Museum Public Gallery (50-100 words).
  - b. Write about the importance of a natural history museum (50-100 words).
  - c. Summarise what you have learnt in the museum hands-on workshop (100 words).

# THINGS YOU HAVE TO DO: SECONDARY SCHOOL & JUNIOR COLLEGE CATEGORY

## 1. Create your own nature scrapbook.

- a. Make 2 covers (A4 size), one for the front and one for the back.
  - i. Include your name, school and class.
  - ii. Make a design for the covers with your own nature drawings, photos or cut-out photographs from unwanted magazines. The design should represent nature from Singapore.
- b. Get some blank A4 papers (white or coloured) to form the insides of your scrap book.
- c. Arrange the covers and papers so that you form a stack like a book.
- d. Punch 2 holes on the left side of the book.
- e. Thread a string or ribbon through the holes and tie it loosely together.
- f. You are ready to start exploring nature using your own nature scrapbook.
- g. On the first page of your scrapbook, write about yourself and your thoughts about nature.

## 2. Go on a nature exploratory trip (this will be organised by RMBR – check the schedules from the RMBR’s website or contact the organiser)

- a. Write about your visit (at least 300 words).
- b. Make a food web using at least 15 plants and animals that you have seen on your visit.
- c. Describe two examples of symbiosis that you have observed during the trip. Include photos or sketches if available.

## 3. Observe nature near your school or neighbourhood.

- a. Follow the life cycle of an animal you have found. Report in details what you have observed. Include photos or sketches if available.
- b. Observe the development of a flower or seedling. Report in details what you have observed. Include photos or sketches if available.

## 4. Do a quick survey of a group of organisms (e.g. ferns, birds or insects) in your school compound.

- a. Describe the methodology of your survey.
- b. Summarise the results of your survey in a table.
- c. Highlight some of the interesting species you have discovered in your survey and write a short paragraph on each one.
- d. Include photos or sketches when available.

## 5. Take part in a museum workshop (this will be organised by RMBR – check the schedules from the RMBR’s website or contact the organiser)

- a. Write about your visit to the Raffles Museum Public Gallery (at least 100 words).
- b. Write about the importance of a natural history museum (at least 100 words).
- c. Learn about classification and why it is important.