

# Naturalist's Badge

Introduction: This Badge aims at raising Brigaders' understandings and interests towards ecosystem, environmental protection and relationships between human beings and the natural environment and kingdom plantae. Through this badge, they can clearly understand how important it is to protect our environment.

## Course Outline

### 1. Stage 1 Badge

- a. Writing a report (Log Book)
- b. Understanding the natural codes set by Agriculture, Fisheries, Conservation Department (including Countryside Code, Code for marine parks etc.)
- c. Observing typical biotic components from major plants and understanding the concept about biodiversity
- d. Understanding the importance of natural conservation and sustainable development
- e. Understanding the concepts about waste separation, recycling and renewal
- f. Understanding biotic environment: the interrelations between different biotic components ( Relationships between producers, consumers, decomposers and human being; food chain and food web, transfer of energy)
- g. A Brigader can choose one activity below and submit a report:
  - Collecting photos about animals and plants
  - Keeping pets
  - Cultivating plants
  - The impacts of urbanization on the natural environment
- h. Need to conduct outdoor observation to observe the impacts of human activities and urbanisation on ecosystem and environment

### 2. Stage 2 Badge

- a. Understanding the natural codes set by Agriculture, Fisheries, Conservation Department (Code of Conduct for Birdwatching, Code of Conduct for watching butterfly, mammals, monkeys, dolphins, Code of Conduct for visiting war relics)
- b. Understanding the relationship between physical environment and biotic opponents such as light, temperature, humidity, wind and soil etc.
- c. Understanding the correlations between different biotic components, such as commensalism, mutualism, parasitism
- d. Understanding the importance of environmental protection and conduct outdoor field works about human activities which includes urbanization, farming, livestock rearing, mining

- e. Understanding the importance of green plants for geography and the animals.
- f. Understanding the protective measures for endangered species and its importance
- g. A coach will give a brief introduction for how to conduct the outdoor field work to a group. A group can choose one biotic environment such as ponds, rocky beaches, sand beaches and streams
- h. Conducting an outdoor fieldwork to investigate the interrelationships between different plants and the impacts of a physical environment to them. If possible, collect some living organisms to make some samples. If not, record them in the Log Book.
- i. A coach will guide the group for analyzing the result obtained from the outdoor field work and writing a report about the outdoor field work

### 3. Stage 3 Badge

- a. Understanding the correlative impacts between physical environment and biotic components in different ecosystems from four ecosystems in Hong Kong including woodlands, coastal areas, streams, mangroves so as to understand the high adaptability of biotic species.
- b. Understanding the global environmental protection and international vision
- c. Brigaders have to conduct a investigation project which lasts for three months. Brigaders can choose their topics freely, but they have to seek permission from their coaches before starting the project. There are some suggestions:
  - Environmental Protection
  - Investigation for pollution problems
  - Planting mushrooms plan
  - Making wine
  - Geology
- d. The investigation project can be conducted by an individual or a group. The report has to be detailed (with both words and photos).

### **Assessment Criteria**

1. Stage 1 Badge is assessed in the form of written tests or writing a report (by individual or group)
2. Stage 2 and 3 Badge are assessed only in the form of writing a report

### **Notes**

1. A coach has to guide the group for conducting outdoor field works, researching information, growing plants and each investigation project.

## 2. Reference

- Natural trails in each country park
- Tree walks in each country park
- Environmental Protection Department
- Agriculture, Fisheries, Conservation Department