



Agriculture, Fisheries and Conservation Department

Hong Kong Country Parks Education Kit for Secondary Schools

Living Things and Observing Animals

Topics covered:

- Seven characteristics of organisms
- Importance and application of these characteristics in the natural environment
- How to observe an animal
- Dos and Don'ts when observing wildlife

Background information:

You and I are living things, just as the animals and plants around us are. How do we know if something is living or non-living? And why is this important in our natural environment?

In fact, there are seven characteristics of organisms: movement, excretion, the need for food, reproduction, growth, reaction to stimuli, and breathing. All of these are crucial for the survival of organisms.

Let's go to the country parks to visit some of these living things! Shhhh?! We need to keep quiet to avoid disturbing their home! How should we observe animals? And what are the Dos and Don'ts when observing wildlife?

Teaching objectives

1. To enable students to distinguish between living and non-living things through wildlife observation in country parks.
2. To have students brainstorm other living things which have different structures, but which still have the seven characteristics, through observing wildlife (using a butterfly as example in the worksheet).
3. To enable students to understand the importance of the senses and response mechanisms that allow organisms to survive in the natural environment.
4. To educate students on appropriate attitudes and procedures when doing field studies.
5. To educate students about the value of appreciating and respecting every organism in the country parks.

Suggested study mode

Field study

Suggested country park / visitor centre for the field study

- [Lions Nature Education Centre](#)
- [Shing Mun Country Park Butterfly Garden](#)
- [Tai Po Kau Nature Reserve](#)

Suggested procedures

1. Take the students to one of the country parks/visitor centre suggested above (e.g. [Lions Nature Education Centre](#), [Shing Mun Country Park Butterfly Garden](#), or [Tai Po Kau Nature Reserve](#)) for the field study to watch butterflies.
2. Have all the participants gather at a particular spot of the field study site to conduct the activity. (Note: the spot should be surrounded by a range of living and non-living things.)
3. Introduce the activity and then ask the students to finish [Worksheet IS-1.1](#).
4. Encourage the students to observe several characteristics of butterflies, including their movement, nutrition, and detection of, and reaction to, stimuli.
5. If necessary, help the students get started by describing one or two characteristics of butterflies and have the students do the rest.
6. Have the students complete [Worksheet IS-1.2](#) and [IS-1.3](#) during their observation.
7. Then divide the students into groups of 2 to 3. Moving on to [Worksheet IS-2](#), ask them to take photos of butterflies demonstrating 3 out of the 7 characteristics of living things. Have them complete [Worksheet IS-2](#) with printouts of the photos as homework.
(Note: Items 8 to 11 are specially designed for the [Lions Nature Education Centre](#) Field Trip, so slight modifications to the flow are needed for other country parks.)
8. Take the students to the Insectarium in [Lions Nature Education Centre](#). Take them around the Insectarium explaining the information on the display board.
9. Go to [Worksheet IS-3.1](#). Use the key in the centre to try to identify the three animals provided. Have the students match the photographs to each description, making sure they are matched correctly. Have them write down the group each one belongs to.
10. Go to [Worksheet IS-3.2](#). Have the students select the board they find most interesting, and have them write down the application of the visit to the IS subject.
11. Allow time for a teacher-and-student group photo outside the Insectarium.
12. Moving on to [Worksheet IS-4](#), ask the students to walk around and choose one living thing other than a butterfly for observation (e.g. bi