

Kadoorie Farm & Botanic Garden

Plants

*Visit Diary*

*Outdoor Learning Day*

# A Visit to the PLANT KINGDOM

Teacher's Version

This is the personal learning diary of:

Name:

Date of Visit:

Time of Visit:


Place Visited:

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## Things to note before setting off into the Plant Kingdom:

- 1 Do remember to act in an orderly manner.
- 2 Remember - Safety first.
- 3 Do arrive at the meeting point punctually (meet at the open space in the Reception area at \_\_\_\_\_am/pm).
- 4 Do not leave the visiting area without permission.
- 5 Do not damage anything in KFBG.
- 6 Do not touch any plants or animals in KFBG unless instructed by teachers or KFBG staff.
- 7 Do not shout, play or run in KFBG.
- 8 Sections marked with a house symbol “” should be completed at home.

## KFBG MAP



## Brief History

The Kadoorie brothers, Sir Horace and Lord Lawrence, planted the seeds for the establishment of Kadoorie Farm and Botanic Garden (KFBG) when they founded the Kadoorie



Agricultural Aid Association (K.A.A.A.) in September, 1951. The aim of the K.A.A.A. was to encourage the right mental attitude by “Helping People to Help Themselves” through training, supply of agricultural inputs and interest-free loans.

In 1956, the K.A.A.A. set-up an experimental and extension farm at Pak Ngau Shek (the present site of KFBG) as a centre for demonstrating crop production and animal husbandry, improving livestock breeds, and, training local farmers and Hong Kong-based Gurkha soldiers. Special breeds of pigs and chickens were developed which suited local conditions. The result was a revitalization, not only of local agricultural development and food security but also of the hopes and dreams of the people of the New Territories.

On 20th January, 1995, the Legislative Council of Hong Kong passed an Ordinance (Chapter 1156) that incorporated Kadoorie Farm and Botanic Garden as a conservation and education centre. This opened the way for a new era of flora and fauna conservation, organic agriculture, environmental education and a focus on sustainable living in Hong Kong and the region. Since 1998, our work has also been extended to the Mainland.

In 2006, Kadoorie Farm and Botanic Garden celebrated its 50th Anniversary.



## KFBG's mission statement is:

We exist to increase the awareness of our relationship with the environment and bring about positive change in the world through conservation and education.



- a. We inspire a sense of joy, wonder and connection with nature.
- b. We highlight and address symptoms of the growing environmental crisis.
- c. We explore the root causes of the crisis, by looking in particular at the dominant socio-economic system.
- d. We develop and promote lasting values and more sustainable ways of living.

KFBG's long-term vision is to help create a world without environmental crisis, in which conservation of the natural heritage and sustainable living enable people to live in contentment, with respect for each other and nature.



### Activity One: Leaf Elves

Venue : Lower farm area

Purpose :

1. To develop students' observation skills.
2. To study plant diversity by observing the characteristics of different leaves.
3. To increase the awareness of our relationship with the environment through appreciating the beauty of nature.

Target : Primary 1-6 students

Duration : 10 minutes

### Additional information

The Plaza is one of the appropriate locations to conduct this activity.





Kadoorie Farm & Botanic Garden **Plants**

*Visit Diary*

Outdoor Learning Day  
A Visit to the PLANT KINGDOM

# Leaf ELVES

**Dear students,**

We are going to visit the Plant Kingdom, you will need 5 leaf elves to be your guides. Remember the unique features of these 5 leaf elves, and seek them in the forest. Gather them as they reveal themselves to you.

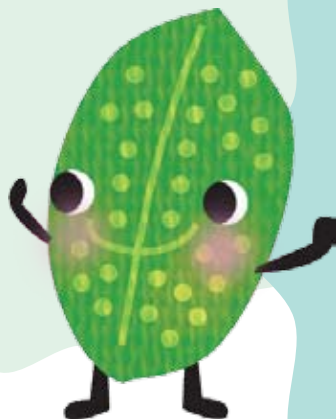


I have 2 colours.

I look like your hand.



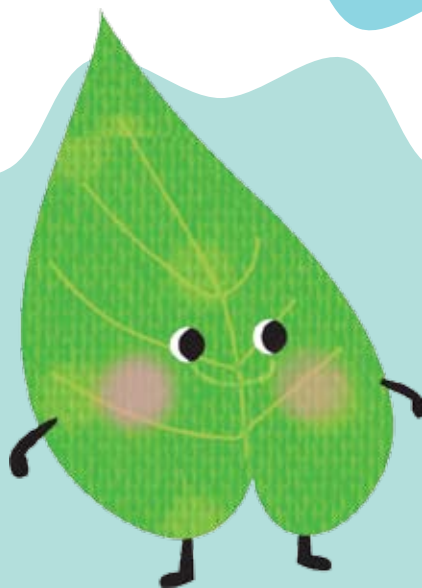
I have many holes.



I have a zig-zag edge.



I am larger than your hand.



1-2

## Activity Two: Renewable Energy

Venue: Reception

Purpose: 1. To understand the concepts, applications, advantages and limitations of Renewable Energy.  
2. Whether there are any solutions for the energy crisis?  
3. Wise use of energy.

Target: Primary 4-6 students

Duration: 10 minutes

### Additional information:

## I. Renewable energy

Renewable energy is an alternative type of power supply to tackle a basic problem of the energy crisis, which are the emissions produced when carbon-based fossil fuels are burnt in power generation. Power generation is one of the major emitters of the greenhouse gases especially CO<sub>2</sub> which is changing global climate. Examples of renewable energy include wind, water, solar, tidal and geothermal. The word “renewable” means the ability to recover or repeat itself.

The advantages and limitations of renewable energy are as follows:

	Advantages	Limitations
1	It has zero-emissions and does not generate greenhouse gases.	It can only be used in certain geographical areas.
2	It is abundant and renewable.	Its aesthetics and public safety warrants further discussion.
3	It is mostly free of charge.	It can only provide a small fraction of the total energy needs of the world.



## II. Solar Lighting at KFBG

### Components of solar light:

- Photovoltaic (PV) modules or so-called PV panel.
- An energy-saving lamp.
- A durable casing to protect items which include a smart control panel and an environmentally-friendly rechargeable battery.

### Operation of solar light:

- Photovoltaic (PV) module receives sunlight and converts solar energy into direct current electricity during the day. Electricity is then stored in the batteries and used by the lamps at night.
- Rechargeable batteries can supply power to lighting system for as long as five days without recharging. Thus, power supply is still available even though there may be extended overcast weather.
- PV systems are already a part of our lives. The smallest systems used include power for calculators and wrist watches.

Kadoorie Farm & Botanic Garden **Plants***Visit Diary***Venue:** Kwun Yum Garden**Renewable  
ENERGY**

There is an energy crisis in the Plant Kingdom. Can you help? Look around the garden and try to find a way to help and conserve energy.



- 1 Can you see this instrument in the Kingdom? What do you think it is?

**Solar Light**

- 2 Suggested answers to this “purpose”. How do you think it works?

To receive sunlight and convert solar energy into direct current electricity during the day. Electricity is then stored in the batteries and used by the lamps at night. It can light up the streets at night.

- 3 Can you think of an everyday item driven by the same mode of energy?

**Calculator / Toy / Heater (or any other reasonable answer)**



- 4 What are the advantages and limitations of this type of energy?

**Advantages**

**Please refer to page 6**

**Limitations**

**Please refer to page 6**





## Activity Three: Plant Search

**Venue :** At the back of Kwun Yum Garden

**Purpose :**

1. To study some common plants found in Hong Kong.
2. To study simple plant classification methods through observation and record.
3. To develop students' awareness of the need for plant conservation.

**Target:** Primary 4-6 students

**Duration:** 20 minutes

### Additional information

#### I. Plant Dispersal Methods

To avoid competing with the parent plants for nutrients, sunlight and space, some plant species tend to disperse their next generation some distance away from their parent plants. There are 4 ways of plant dispersal:

- A. Self dispersal:** These are plants that use mechanical means to disperse their seeds, by splitting or scattering their fruits, thus, throwing their seeds away from the parent plants. Examples include: Birdwood's Mucuna (photo 12), Taiwan Acacia, Flame Tree, Lance-leaved Sterculia and Incense Tree.
- B. Animal dispersal:** These are plants that use animals to disperse their fruit. They usually have fleshy edible fruit with bright colours to attract wild animals to eat and disperse the seed away from the parent plant. Some plants have sticky seeds that can attach themselves on the animals' hair or fur when they pass by. Examples include: Fig Tree, Chinese Hackberry, Ivy Tree, Peach and Spanish Needles.
- C. Wind dispersal:** These are plants which use wind to help disperse their seeds/ spores. They are usually very light in weight, or covered in feathery materials that act like parachutes, or look like helicopter rotors that spin in the wind. Examples include: Bird's Nest Fern, Tree Cotton, Pine Tree, Dandelion and Sword-leaved Maple.
- D. Water dispersal:** These are usually plants using water to disperse their seeds. They usually grow near the rivers, streams or the sea, and their seeds / fruits can float. Examples include: Java Apple, Lotus, Coconut Palm, Water Banyan and Looking-glass Tree.
- The plant species first cited in each of the examples listed for the plant dispersal methods above can be found around Kwun Yum Garden in KFBG .

#### II. Classification of Plants

##### A. Based on whether the plants have flowers or no flowers:

- Flowering Plants:** Plants which bear flowers. Examples include Hong Kong Orchid Tree, Hibiscus, Frangipani, Orchids and Common Camellia.
- Non-flowering Plants:** Plants which do not bear flowers. Examples include algae, lichens, mosses, ferns and gymnosperms (such as pines).

##### B. Based on growth habits:

- Aquatic plants:** Plants which are either entirely submerged or partially submerged or floating on water, e.g., Lotus, Water Lettuce, Reeds, Rice and Water Hyacinth.
- Terrestrial plants:** Plants which live or grow on land, e.g., Fig Tree, Chinese Hackberry, Camphor Tree and Peach.

##### C. Based on stem characteristics:

- Herbaceous Plants:** Plants that bear non-woody stems, such as Walking Iris, Orchids, Pitcher Plant, Lily and Sensitive Plant.
- Woody Plants:** Plants that have strong and hard woody stems, which include shrubs and trees.
- Shrubs generally have no main trunk but bear several more or less upright stems, and are usually less than 5 metres in height, e.g., Turk's Cap, Lantana, Red Powder Puff, Common Camellia and Chinese New Year Flower.
  - Trees are taller (usually above 5 metres in height) than shrubs, and characterized by a single central trunk, e.g., Longan, Chinese Hackberry, Incense Tree, Camphor Tree and Flame Tree.

Kadoorie Farm & Botanic Garden **Plants**

# Visit Diary

How do plants in the Kingdom make more plants?

To grow and flourish in the Plant Kingdom, different plants use different methods to create new plants. Try to find 2 ways that different plants use to disperse seeds around Kwun Yum Garden.

**Venue:** At the back of Kwun Yum Garden

## Plant SEARCH

If you cannot identify the plant, sketch its features.

Name of Plant

Method of seed / spore dispersal

Name of Plant

Method of seed / spore dispersal





## Plant SEARCH

**Venue:** At the back of Kwun Yum Garden

Is there a plant that seems special and attracts you?  
Why do you like it?

Draw its form and features in the space below:



Write down the features of one of these special plants that you have observed today:

Date of record

1 Is it a:

☐ Herb ☐ Tree ☐ Shrub ☐ Climber

2 Is it flowering?

☐ Yes ☐ No

3 Is it bearing fruit?

☐ Yes ☐ No

4 Colour

5 Form

6 Other features

7 Why do I like this plant?



## Activity Four: Garden of Life

Venue : Eco-garden

Purpose :

1. To study the growth requirements of plants.
2. To study the characteristics of organic farming, and the advantages and disadvantages of this type of farming system.
3. To develop students' awareness for healthy food supply and a balanced diet.

Target : Primary 4-6 students

Duration : 20 minutes

### Additional information

#### I. Characteristics of Organic Farming

- No chemical fertilizers, pesticides or genetically-modified organisms are used in this type of farming system.
- It is a sustainable production system that takes ecological, social, health and economic considerations into account. It creates harmony between agricultural development and wildlife conservation.

##### Ecological

- Stewardship of land and natural resources.
- Conservation of local varieties of crops suited to local soil and weather conditions.
- Diversification of crops and livestock to enhance the biological and economic stability of the farm.
- Protect soil fertility.

##### Health

- No pesticides: Conventional growers use pesticides to protect their crops from insects. The residue of pesticides may be left on the produce. People buying organic food can limit their exposure to these residues.
- No hormones: Poultry may have been injected with growth hormone implants, antibiotics and medications to spur growth and prevent diseases.

##### Social

- All production should meet the needs of the present without compromising the ability of future generations to meet their own needs.
- Consider the working and living conditions of labourers, the needs of rural communities, consumer health and safety both in the present and the future.
- To support local organic farmers and increase the awareness of the importance of organic farming by establishing a connection between organic farmers and consumers.

##### Economic

- To build up a local "community supported agricultural system" to support the local organic farmers and minimize the distance and fuel consumption in transporting farm produce from growers to consumers.
- The growers receive better prices for their crops and are relieved of much of the burden of marketing.
- In addition, the consumers and growers provide mutual support and share the risks and benefits of food production.

## II. Differences between Organic & Industrial Farming

Organic Farming	Industrial Farming
- Soil usually rich in nutrients due to balanced fertilisation programme and use of organic fertilizers.	- Prolonged use of chemical fertilizers leads to nutritional imbalance in soil.
- Soil nutrient replenishment especially when the land is left to fallow.	- Soil nutrient depletion and soil degradation.
- Focus on agro-biodiversity.	- Mono-cropping.
- Pest management by understanding and disrupting the ecological needs of pests.	- Use of chemical pesticides, which can be non-selective. Beneficial insects may also be killed.
- Organic waste recycling.	- No recycling of organic waste.
- No genetically-modified organisms.	- May have genetically-modified organisms.
- More labour-intensive practices.	- Capital-intensive practices/mechanization.
- Animal needs are addressed; animals fed with organically-grown feedstuffs.	- Intensive livestock farming; animal may be fed with growth hormones and antibiotics.
- Food production in harmony with wildlife conservation .	- Massive pollution and environmental degradation.

## III. Advantages and Limitations of Organic Farming

Advantages	Limitations
- Secures the genetic resources of native crops by seed saving.	- High labour cost and product prices.
- Conserves habitats for local wildlife. Wildlife is encouraged by retaining natural landscape diversity in the environment such as water resource, wetland, and woodland. Agricultural practices are evaluated to minimize pollution on the environment.	- Volume of food production is relatively low.
- Provides environment for public education, which generates support for conservation and organic farming practices.	- Food fluctuates seasonally depending on weather and climatic conditions.
- Provides fresh, healthy and safe food products, which are free from pesticides, chemicals, and additives.	- Shortage of land suitable for organic farming that is free from chemicals in the surrounding land and water.



## IV. Pest Management

- Pests are defined as a group of organisms which reproduce rapidly and cause economic damage.
- They can include worms, insects, wild boar and birds.
- Pest management can be achieved in three ways: cultivation methods, physical methods and biological methods.

### A. Cultivation methods

#### Inter-planting

By growing different plants together at the same time, instead of a monoculture (i.e., repeatedly growing one type of crop in a large field for a long period of time) can prevent outbreak of plant-specific pests by restricting their food supply. This helps to prevent large numbers of plant-specific pests destroying crops.

#### Companion planting

Planting herbs or flowers with known insect-repellent properties, such as mint and French marigold, around or near the desired crop to discourage pests.

#### Crop rotation

Changing the type of plant that is cultivated from time to time on a regular or rotational basis. As different pests have different preferences for a particular type of plant, this crop rotation practice can break the continuity of generating cycles of pests.

#### Seasonal cropping

Crops are planted according to their optimal growing seasons to develop their maximum natural resistance and to ensure that the crop is only present for a short period in the fields.

### B. Physical control methods

Reflective foil strips help to visually disorient insects.

Scarecrows and eye balloons may scare away birds which eat vegetables.

Fencing can protect plant crops from being eaten by larger animals such as porcupine, wild boar and barking deer.

Mulching with a layer of shredded twigs, bark and leaves on the ground around vegetables stops pests from laying eggs in the soil, while minimising loss of soil water and prevents weed growth.

### C. Biological control methods

Biological control methods using natural enemies of pests are diverse in their scope and applications. An example is setting-up frog ponds to encourage amphibians to control pests or bat friendly devices to attract insect-eating bats

which help to control insect populations. A common bat in Hong Kong, the Japanese Pipistrelle can eat several thousand small insects each night.

## **V. Organic fertilizers**

### **1. Peanut cake**

- It is the residue generated from peanut oil production.
- It is high in nitrogen content and is widely used for leafy vegetable production in organic farming.

### **2. Bone meal**

- In Hong Kong, bone meal is made from cattle bones which can be easily collected from the central abattoirs.
- It is rich in phosphates and calcium which are essential nutrients for growing fruit, leguminous plants and root crops.

### **3. Ash**

- It is made by burning leaves, grasses and tree branches.
- It is rich in potassium which enhances transportation of photosynthetic products among plant tissues.
- It is widely used for growing tubers like sweet potatoes and carrots.

### **4. Green Manure**

- The bacteria attached on the roots of leguminous plants, such as peanuts and soya beans, can increase the nitrogen content of the soil which becomes available to support plants growth. Examples of Green Manure include peanuts, soya beans and green beans.

### **5. Compost**

- It is made from animal droppings, soya bean residues, fallen leaves and twigs.
- It is not only a complete fertilizer but is also an excellent soil conditioner.
- Widely used in organic farming.

Simple steps for making compost:

**Step 1:** Design and make a compost bin.

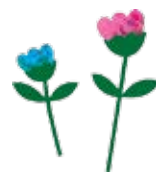
**Step 2:** Collect various kinds of compost materials and mix them together to obtain the proper carbon: nitrogen ratio (25-30:1); to facilitate decomposition of organic matter by micro-organisms.

**Step 3:** Assess the progress of composting by regularly observing the change of temperature, colour, shape, smell and water content; make adjustments, when necessary.

**Step 4:** Turn the compost regularly. In general, the composting process lasts about 2-3 months and requires mixing the compost materials at least 2-3 times every month.

**Step 5:** The compost is ready when it has the following characteristics:

- **Appearance:** small pieces of the mixed materials are dark brown in colour.
- **Smell:** does not stink, smells like soil.
- **Volume:** decrease to around 60% of original amount.
- **Temperature:** similar to ambient temperature and remains steady.

Kadoorie Farm & Botanic Garden **Plants***Visit Diary***Venue:** Eco-garden**Garden of LIFE**

The Garden of Life in the Kingdom is often invaded by pests. What can we do to save the Garden? To save the Plant Kingdom, you must receive special training in pest control. Please draw or mark on this map the pest control measures used in the Eco-garden.





## Garden of LIFE



**Venue:** Eco-garden

**What makes a plant healthy?**

### Organic fertilizer

Please write the names of five organic fertilizers in the pink boxes below, and match them with the appropriate description.

1

**A** Made from peanut cake after extraction for oil. This fertilizer is rich in nitrogen. Suitable for leafy vegetables.

2

**B** Raw ingredients are vegetable scraps, leaves and twigs. It is widely used in organic farming because it can improve soil texture and fertility.

3

**C** Root nodules of leguminous plants which convert nitrogen into key nutrients (nitrate) that aid vegetable growth.

4

**D** Ashes of burnt leaves or twigs. The potassium within this material aids effective movement of nutrients produced by photosynthesis to various parts of the plant. Suitable for plants with tubers.

5

**E** Animal bones ground into powder form. It contains phosphates and has a long lasting effect on soil fertility. A fertiliser suitable for fruit trees, leguminous plants and root crops.

### Let Me Think – Garden of Life

1 Which do you think is more effective, the methods shown by you on page 6 or using pesticides?



2 Would you choose to eat vegetables with or without holes bored by insects? Why?

3 Which method of applying fertilisers has less environmental impact?

4 What are the advantages and limitations of organic farming?

Please refer to page 13.

## Activity Five: Plant Snapshots

Venue : Eco-garden

Purpose : 1. To study the different types of plant propagation methods.  
2. To develop students' awareness in plant conservation.

Target : Primary 4-6 students

Duration : 40 minutes

### Additional information :

## I. Plant Propagation Methods

You can propagate a plant either sexually or asexually:

**Sexual propagation** in plants means reproducing through their seeds.

**Asexual propagation** is the creation of a new individual plant from the tissue or other elements of a "parent" plant. It is used for propagating plants that are difficult to or cannot reproduce from seeds. It can also 'bypass' the juvenile stage of plant growth and, hence, shorten the time to flowering and fruiting.

The following are some common methods of asexual propagation:

**Cuttings** - It means removing a piece of stem, leaf or root from the parent plant and then placing the cuttings into a tray with soil. Both woody and herbaceous plants can be asexually propagated by using cuttings of stems, leaves and roots.

**Layering** - Layering involves encouraging root growth from a part of the parent plants and then cutting / separating them. It is a good technique for some hard-to-root plants.

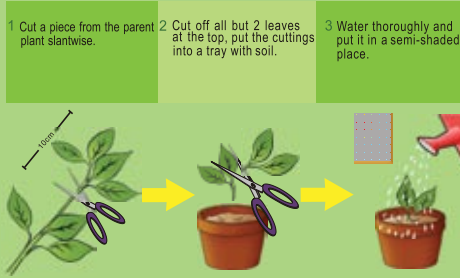
**Division** - Plants with enlarged below-soil parts like bulbs, rhizomes, or tubers can be divided into new plants simply by cutting in half. Division can also be used for a clump of plants that are separated into pieces, each with adequate roots and shoots for re-establishment of a new plant.

**Grafting** - Grafting is the joining of different segments of two different plants of the same or closely related species.

### Cuttings

Removing a piece, such as stems, leaves or roots, from the parent plant and growing it into a new plant.

Examples : Small Allamanda (*Allamanda schottii*),  
Hydrangea (*Hydrangea macrophylla*) and Chinese  
Hibiscus (*Hibiscus rosa-sinensis*)



### Layering

Generate new roots from a part of the parent plant, which is then cut away once the new plant is established.

#### Ground Layering

- 1 Bury a low-growing branch into the soil.
- 2 Place soil over the area to encourage rooting.
- 3 When the new plant is established, cut it away.

Example: Allamanda (*Allamanda cathartica*).

#### Air Layering

- 1 Make an incision around a shoot of the plant and peel the bark away.
- 2 Wrap the wound with sphagnum moss, then wrap it in a plastic sheet and keep it moist.
- 3 Once new and strong roots have grown from the wound, the new plant can be cut away and transplanted.

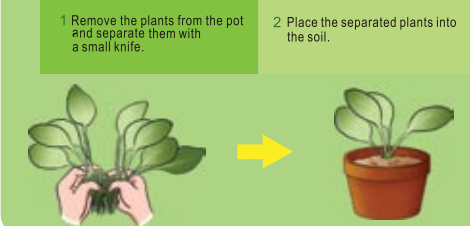
Example: Rhododendron (*Rhododendron* spp.) and  
Pink Powder Puff (*Calliandra haematocephala*).



### Division

Cut the enlarged below-soil part of plants such as bulbs, corms, rhizomes, tubers or stolons into segments. Each of the segments should have a bud and some roots. Division can also be carried out on a clump of plants, which are separated into pieces with adequate roots and shoots for re-establishment.

Examples: Blue Grass (*Ophiopogon japonicus*)  
and Shell Ginger (*Alpinia zerumbet*)

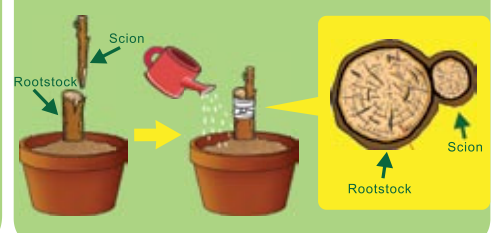


### Grafting

Joining different segments of two different plants of the same or closely related species.

Examples: Peach (*Prunus persica*)

- 1 Make a slight downward and inward nick lower down the rootstock.
- 2 Place the rootstock and scion together and tie firmly.
- 3 Place in a warm and humid area and water regularly.



Kadoorie Farm & Botanic Garden **Plants***Visit Diary***Venue:**  
Eco-garden

# Plant SNAPSHOTS

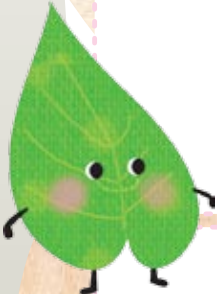
Many of the citizens of Plant Kingdom are dying after a previous crisis. What kind(s) of reproduction methods can we use to increase the population of the Plant Kingdom? (Any 3 methods)

1

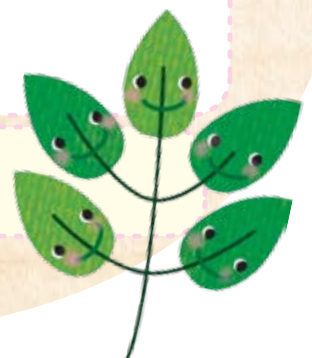
2

3

Try to draw the steps of one of these reproduction methods below:



Name of this reproduction method:





## Activity Six: Champion Tree

**Venue :** Anywhere in KFBG where you can find a big tree

**Purpose :** 1. To study the characteristics of a tree.  
2. To develop observation and recording skills.  
3. To arouse students' interest in exploring the environment.

**Target :** Primary 4-6 students

**Duration :** 20 minutes

### Additional information :

## I. Characteristics of Tree

### A. Types of Fruit

- Berry :** A juicy fruit with many, usually small seeds, e.g., Sapodilla, Chinese Holly and Ivy Tree.
- Drupe :** A fruit with seeds which are covered by a hard, stony endocarp, e.g., Hance's Syzygium, Short-flowered Machilus and Chinese Hackberry.
- Pod :** A long, thin, dry fruit, developed from a single carpel, splitting down the side where the margins of the carpel were joined, e.g., Flame Tree, Taiwan Acacia and Snake Acacia.
- Cone :** The fruit of pine trees; each hardened scale covers winged seeds, e.g., Pine Tree.
- Capsule :** A dry fruit that cracks open with numerous tiny seeds packed inside, e.g., Reevesia, Brisbane Box and Sweet Gum.
- Pseudocarp :** A fruit that develops from the receptacle, not from the ovary, e.g., Fig Tree.

### B. Shapes of Leaves

- Oblong :** e.g., White Jade Orchid Tree and Oblong-leaved Eustigma.
- Elliptic :** e.g., Camphor Tree, Incense Tree and Chinese Banyan.
- Hoof :** e.g., Camel's Foot Tree, Hong Kong Orchid Tree and Purple Camel's Foot.
- Trilobed :** e.g., Sweet Gum
- Sickle :** e.g., Taiwan Acacia
- Oval :** e.g., Chinese Hackberry, Candlenut Tree and Jackfruit.
- Pinnate compound :** e.g., Flame Tree, White Popinac and Tamarind.
- Palmate compound :** e.g., Ivy Tree, Tree Cotton and Floss-silk Tree.

### Other characteristics:

- Serrated edges
- Hairy surface
- Leaf base with glands
- Fragrant

## II. Suggested venues

Some big trees can be found in the Lower Farm area of KFBG.  
Suggested venues are areas around Kwun Yum Garden and the Pigsties.

Kadoorie Farm & Botanic Garden **Plants**

# Visit Diary

**Venue:** Kwun Yum Garden

## Champion TREE

The Plant Kingdom has a strong community with many types of plants. Let us now visit **the most senior citizen of the kingdom - Champion Tree**. Pick a tree that you think is the most attractive, then complete its "Info File".



### Info File of

(Name of Tree)

Age

Country  
of Origin

(If known)

Alien or Native ?



Tree height

M



Diameter at Breast Height

cm



"Heart beat" Can hear / Cannot hear



Pick up



Leaf



Flower



Fruit



Seed

Leaf Shape (Please circle the appropriate type)



Elliptical



Sickle



Hoof



Trilobed



Palmate  
Compound



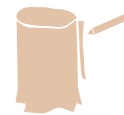
Pinnate  
Compound

Draw the Tree Form in this space

Write down the reason(s)  
why you like / chose this Tree?



Tree bark rubbing



Bark Colour



Almond



Light Brown



Dark Brown



Soil Red



Grey



Grayish White

Texture : **Smooth** or **Rough** ?

Has the bark got any pattern ?

Flowering : **Flowering** or **Not Flowering** ?

Petal Colour



Red



Orange



Yellow



Purple



White

Petal Size :

Stamen Colour



Red



Orange



Yellow

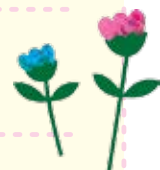


Purple



White

Stamen Size :



Fruiting : **Fruiting** or **Not Fruiting** ?

Fruit Type :

Any distinctive features :



Kadoorie Farm & Botanic Garden **Plants**  
*Visit Diary*

## Champion TREE

### Types of Fruit



**Berry** Fleshy, juicy fruit with many tiny seeds.



**Drupe** Fruit is covered by a layer of hard endocarp. The outer layer is usually a fleshy mesocarp.



**Pod** Legume-shaped fruit that pops open to disperse seeds when ripe.



**Cone** Gymnospermae fruit carrying seeds. Every piece of hard scale contains winged seeds.



**Capsule** Dry fruit that breaks open to reveal many tiny seeds.



**Pseudocarp** A fruit developed in the ovary is usually called true fruit, while one that is developed from a receptacle is called a pseudocarp.

## Common Trees of Hong Kong

### Native Species

Chinese Banyan  
Chinese Hackberry  
Chekiang Machilus  
Chinese Tallow Tree  
Incense Tree  
Ivy Tree  
Lance-leaved Sterculia  
Many-nerved Machilus  
Schima  
Sweet Gum

### Naturalized Species

Camphor Tree  
Tree Cotton  
White Popinac



### Exotic Species

Brisbane Box  
Camel's Foot Tree  
Dwarf White Bauhinia  
Flame Tree  
Hong Kong Orchid Tree  
Horsetail Tree  
Paperbark Tree  
Slash Pine  
Sunshine Tree  
Taiwan Acacia  
White Jade Orchid Tree

## **Activity Seven: After Thoughts**

**Venue :** At Home

**Purpose :** Students to evaluate what they have learnt.

**Target :** Primary 4-6 students

**Duration:** Students should finish this section at home

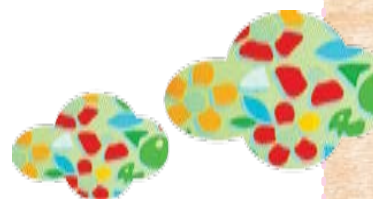
Kadoorie Farm &amp; Botanic Garden

Plants

Visit Diary

# After THOUGHTS

After visiting the Plant Kingdom, please suggest some ways to protect the Earth. Can you put these methods into practice in your daily life? (Draw the shape of your palm in the box below and write your suggestions inside)





Write down your thoughts after the visit :



I saw \_\_\_\_\_ in \_\_\_\_\_

I felt \_\_\_\_\_

I heard \_\_\_\_\_ in \_\_\_\_\_

I felt \_\_\_\_\_

I smelt \_\_\_\_\_ in \_\_\_\_\_

I felt \_\_\_\_\_

I touched \_\_\_\_\_ in \_\_\_\_\_

I felt \_\_\_\_\_

I have learned that \_\_\_\_\_



## Acknowledgements

We would like to thank Christian Alliance Toi Shan H.C. Chan Primary School, Sung Tak Wong Kin Sheung Memorial School and the Education Bureau School-based Curriculum Development (Primary) Section for providing comments and suggestions in the development of this plant visit diary.

Kadoorie Farm and Botanic Garden

✉ Lam Kam Road, Tai Po, New Territories, Hong Kong  
☎ (852) 2483 7200 🌐 [www.kfbg.org](http://www.kfbg.org)



SGS-COC-2113

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