

# Wetland Footprints

Learning Activity Resource Package  
Education Bureau  
Teacher's Guide



Education Bureau



Agriculture, Fisheries and  
Conservation Department



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# Introduction

The Government has implemented the kindergarten education scheme ("Scheme") starting from the 2017/18 school year, one of the medium-/long-term measures is to explore the feasibility of setting up resource centres to meet the needs of kindergartens (KGs) for more space for various learning activities. In order to provide more opportunities for KG students to conduct diversified learning activities in a larger space as soon as possible, the Education Bureau (EDB) has collaborated with Agriculture, Fisheries and Conservation Department (AFCD) to capitalise on the resources (in particular the plants, animals and open area) at the AFCD Hong Kong Wetland Park and serve the functions of resource centres for KGs by providing outdoor environment for students' free exploration and learning through play. EDB has commissioned the Hong Kong Baptist University to develop this Learning Activity Resource Package to help KGs develop students' positive attitude in caring for nature and appreciation of life. We would like to express our gratitude to AFCD for their support, and professional advice on capitalising the centre resources and the development of the Resource Package which enable KG students to have larger space for exploration and conducting diversified learning activities.

## I Design Rationale of the Learning Activity Resource Package

With respect to the above-mentioned Scheme and the learning area of "Nature and Living" in the *Kindergarten Education Curriculum Guide* (2017), this Resource Package aims at developing and fostering children's curiosity and exploratory spirit; encouraging them to explore the surroundings with multiple senses; understanding the close relationship between the nature and the human life; developing their care and respect for, and appreciation of the natural environment and resources; and nurturing their attitudes and habits of caring for the nature.

In addition, engaging in outdoor activities and getting close to the nature is significant to children's growth and development. Through free exploration, interaction with nature, interesting experiments and exploration with multiple senses, these can enhance children's understanding and their sense of responsibility in protecting the nature.



## II

# Learning Objectives of the “Nature and Living”<sup>1</sup>

According to the *Kindergarten Education Curriculum Guide* (2017) prepared by the Curriculum Development Council, the learning objectives of the “Nature and Living” are as follows:

1. To develop curiosity about the environment and phenomena around and to enjoy exploring the surroundings and nature.
2. To cultivate an objective and open-minded attitude; to acquire basic exploratory skills through observation, questioning and making assumptions; and to develop abilities to solve problems.
3. To appreciate, respect and care for nature, and live an environmentally-friendly life.

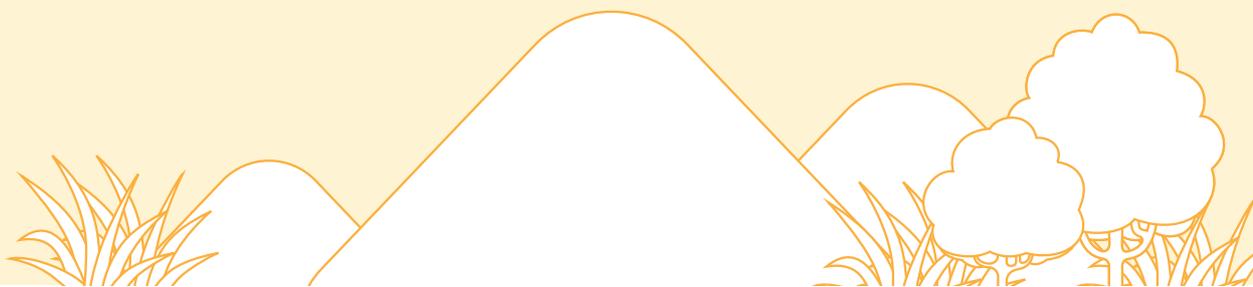
<sup>1</sup>Curriculum Development Council (2017). *Kindergarten Education Curriculum Guide*. Retrieved from [http://www.edb.gov.hk/attachment/en/curriculum-development/major-level-of-edu/preprimary/ENG\\_KGECG\\_2017.pdf](http://www.edb.gov.hk/attachment/en/curriculum-development/major-level-of-edu/preprimary/ENG_KGECG_2017.pdf)





### III Teaching Principles and Strategies

- Teachers should encourage children to pay heed to their surroundings and the natural environment, deepen their understanding through observation and discussion, with a view to enabling children to explore and discover knowledge in the natural and authentic environment.
- Teachers should let children explore with their five senses, arouse their curiosity about exploring and inquiring freely, love the environment and appreciate the nature; so as to understand the close relationship between human beings and the nature and develop a positive attitude towards the nature.
- Teachers should create a pleasant atmosphere of exploration that encourages children to interact and learn from one another. Teachers should provide children with timely guidance to stimulate children’s interest and build up their confidence in learning. Teachers can encourage children to keep trying without emphasising the “model answers” and rushing to present the results.
- When using technology to aid teaching and learning, teacher should ensure the time engaged in such process should not affect the overall teaching and learning arrangements. As the children’s health is also an important concern, excessive use of technology should be avoided.



## IV

### Roles of Teachers in the Activities

- Prior to the activities, teachers should read the Learning Activity Resource Package carefully, and introduce the activity to children.
- Teachers are not only the “providers” who provide children with necessary time and materials required for activities, but also the “facilitators” and “observers” to render timely guidance and assistance to children during the activities.
- Teachers should explore and discuss with children, such as by using the questioning strategies of 6Ws, i.e. What, Who, When, Where, Why and How, to enhance the fun of activities, and help children stretch their imagination and fully participate in the activities.
- Through observation, teachers should understand children’s performance in the activities, analyse their learning and developmental progress, and make adjustments as appropriate.
- In closing, teachers can invite children to share their experience and feelings, help them consolidate the knowledge, skills and attitude learnt with timely and positive feedback so as to nurture their care for the environment and appreciation of the nature.



## V Points to Note

### A. Activity Arrangements

- Different activities require different manpower including staff, teachers, or volunteers. When organising activities, schools should ensure sufficient manpower to supervise and manage the tasks. Schools need to consider factors like the nature of activities, the extent of areas and geographical environment concerned, as well as children’s ability, age and safety, etc. for making appropriate manpower arrangement.
- Teachers should remind children to care for the nature and public facilities, and encourage them to keep the environment clean and not to litter in the activity areas.
- Teachers should take note of the latest weather information issued by the Hong Kong Observatory through radio or television before and during the activity. For details, please refer to the latest EDB Circular on “Tropical Cyclones and Heavy Persistent Rain Arrangements for Kindergartens and Day Schools”. When bad weather is expected, schools should decide whether to change programme or cancel the activity at the earliest possible time.
- During outdoor activities, teachers should pay attention to/remind children on the following points<sup>2</sup> :
  - ▶ Teachers should give full attention to the safety of children while ensuring that children stay in designated areas for activities and not to leave without permission. If children need to go to toilet, they must inform their teachers and be accompanied by an adult.
  - ▶ Remind parents in advance that children must put on long sleeve shirts and pants that are light in colour, as well as shoes that cover entire feet, and bring along suitable caps.
  - ▶ Remind children to drink adequate amount of water in summer to avoid dehydration or heat stroke.
  - ▶ Apply insect repellent on clothes and the exposed parts of the body to avoid mosquito bites.
  - ▶ Make sure that there are members with first-aid knowledge in the group.
  - ▶ Stay on footpaths and avoid walking through vegetation.
  - ▶ Avoid resting on vegetation, or at humid and dark places.

<sup>2</sup>Country Park Hiking Safety Guidelines of Agriculture, Fisheries and Conservation Department. Retrieved from



- ▶ Keep quiet, do not shout or run.
  - ▶ Take care of the children, do not climb over the fences.
  - ▶ Do not pick or damage plants, do not disturb or catch animals.
  - ▶ Do not touch the wild animals, bird feathers or their droppings. Wash hands right after the activities.
- Apart from the above general guidelines, teachers should pay attention to the following when visiting the Hong Kong Wetland Park<sup>3</sup>:
- ▶ The Park opens on Mondays, Wednesdays to Sundays and public holidays from 10 am to 5 pm (Ticketing time: 9:30 am to 4:00 pm). The Park closes on Tuesdays (except public holidays).
  - ▶ Please keep your personal belongings safe. The Visitor Centre provides self-service lockers for visitors' temporary storage of their personal belongings.
  - ▶ Teachers can arrange children to enjoy light refreshments in the atrium or Viewing Gallery of the Visitor Centre. For catering arrangements at the restaurant located in the Park, it is advisable to contact the Restaurant Operator in advance (Tel: 2617 2030).
  - ▶ Teachers should ensure the safety of the children. If first-aid services or assistance is needed, please contact the staff or security guards, or visit the Information Counter at the Visitor Centre for help.
  - ▶ If there is a thunderstorm or inclement weather conditions, please stay in the Visitor Centre.
  - ▶ For ticketing and admission information of the Hong Kong Wetland Park, please visit the following website: <https://www.wetlandpark.gov.hk/en/information/ticketing>

<sup>3</sup>Hong Kong Wetland Park- Plan Your Visit: Points to note. Retrieved from: <https://www.wetlandpark.gov.hk/en/information/code>



## B. The Use of the Learning Activity Resource Package

- This Learning Activity Resource Package emphasises developing children’s exploratory spirits. Each activity is designed according to developmental characteristics of children and divided into three class levels. Teachers can lead activities according to the proposed learning objectives and content. However, during the exploration, teachers should observe children’s responses and performances to make adjustments according to children’s ability, interests and actual performance.
- Teachers can align with the themes of their school-based curriculum, and make good use of other facilities and resources from the Hong Kong Wetland Park, to implement the activities in this Learning Activity Resource Package in a flexible manner.
- For aligning the Learning Activity Resource Package with the school-based curriculum:
  - ▶ Once teachers have grasped the rationale, learning objectives and activities of the Learning Activity Resource Package, they may select those learning activities and objectives which are complementary to their school-based curriculum. Schools may allow teachers to flexibly adopt the content of the Learning Activity Resource Package based on individual class levels, learning environment and developmental needs of children.
  - ▶ Learning Activity Resource Package can be adjusted and arranged in a flexible manner according to children’s ability and actual performance, such as the activity 1 “Who Lives Here” and the activity 2 “Underwater Friends” held at the Life Zone can be combined. However, it is suggested that teachers conduct these two activities before conducting the activity 3 “Exploring the Dipping Pond” and the activity 4 “Beautiful Nature” in the Dipping Pond as the content of the activity 3 and 4 is related to the experience gained in the first two activities. In addition, it is not a must for teachers to complete all the four activities in one day.
- Based on the needs of the learning activities, teachers may make advance registration with the Hong Kong Wetland Park on the use of venue, collection of Children Activity Booklets free of charge, and the loan of the required teaching aids/materials. All items should be collected and returned after use on the same activity day (teaching aids/materials are limited in quantity and available on a first-come-first-served basis whilst stock lasts).

Activity Area	Teaching Aids/Materials for Loan
Life Zone	<ul style="list-style-type: none"><li>• Magnifying glasses (Maximum: 15 pieces)</li><li>• Underwater scopes (Maximum: 5 pieces)</li></ul>
Dipping Pond	A4-sized clipboards with a multi-coloured pencil attached (Maximum: 60 sets)

- Teachers can refer to proposed activity plans to bring along other teaching aids.
- Teachers should advise children on the proper use of magnifying glasses and other assisting tools (if applicable).

- ▶ Teachers should demonstrate how to use a magnifying glass properly: first, place the magnifying glass close to the object, then bring the magnifying glass closer to the eyes until the object looks bigger and clear. Teachers should distribute the magnifying glasses when children are not moving around and alert the fire hazards of using magnifying glass (simply focusing sunlight beam to any objects will cause fire), therefore, children must not use it to look at strong light, such as the sun.
- ▶ Teachers must keep the magnifying glasses and other assisting tools properly.

### Explanatory Notes on Activity Plan

<b>Proposed Class Level</b>	Teachers may adjust the activity content according to children’s ability. Teachers may adopt the content of other class levels to match with children’s learning progress as appropriate
<b>Name of Area</b>	Place for conducting the activity
<b>Proposed Number of Participants</b>	Manpower arrangement can be adjusted according to the number of children. The lower the number per group, the higher the quality of interaction and care for children with diverse needs
<b>Duration</b>	Proposed duration of activity which can be adjusted according to actual situations. Teachers may adjust the content of activity according to children’s interest, without interfering children’s free exploration as the main consideration factor
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• Magnifying glasses (15 pieces), underwater scopes (5 pieces) and A4-sized clipboards with a multi-coloured pencil attached (60 sets)</li> </ul> Free collection from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• Children Activity Booklets</li> </ul> The following items can be prepared by schools as needed: <ul style="list-style-type: none"> <li>• Cameras, Paper Puppet “Dragonfly Dow” (Appendix 1), Pictures of Aquatic Plants (Appendix 2), Pictures of Signs (Appendix 3), Pictures of Aquatic Animals (Appendix 4), Picture of Food Web in a Pond (Appendix 5), Picture of Mosquito fish (Appendix 6)</li> </ul>
<b>Children’s Developmental Characteristics</b>	Can be served as reference for adjusting activities
<b>Proposed Learning Objectives</b>	Holistic/balanced learning should cover knowledge, skills and attitude. Teachers may take reference from them when planning activities. The learning objectives can be adjusted according to children’s ability and in alignment with the school-based curriculum

## Explanatory Notes on Activity Plan (Cont'd)

<b>Focus of Activity</b>	Summary of learning focus of the activity
<b>Proposed Activity Plan</b>	Activity rundown which can be flexibly arranged according to children's ability and performance
<b>Possible Adjustments</b>	Activity can be modified/adjusted according to children's performance and diverse needs
<b>Reference Questions for Teachers</b>	Teachers' roles in free exploration are to facilitate children's discovery of fascinating things and phenomena in nature, so as to arouse children's interest in learning and to become active learners. With regard to the actual situations, teachers may use reference questions to guide and stimulate children's learning motivation
<b>Extended Activities</b>	Depending on the actual situation, extended activity can be conducted either at school or Hong Kong Wetland Park



### C. The Use of Children Activity Booklet

- In order to consolidate children's learning, after the activities, teachers should use this activity booklet for revision and discussion at school, and conduct the related extended activities.



## Introduction of the Hong Kong Wetland Park under AFCD

Wetland is a unique and important ecosystem, which supports a high diversity of species. One of the objectives of establishing the Hong Kong Wetland Park is to provide citizens with an opportunity to get close to wetland ecosystem and enhance their understanding of wetland species. The Hong Kong Wetland Park comprises a 10,000m<sup>2</sup> indoor visitor centre and a 60-hectare wetland reserve. The visitor centre has themed exhibition galleries, theatre, souvenir shop, restaurant and indoor play area. The exhibition galleries showcase the importance of wetland on biodiversity, civilisation and conservation. The wetland reserve includes human-made wetlands and re-created habitats for waterbirds. Facilities include Stream Walk, Succession Walk, Mangrove Boardwalk and three Bird Hides.



# Map of Hong Kong Wetland Park



(Remarks: this map is not exhaustive.)

## VII Activity Plans

### A. Life Zone

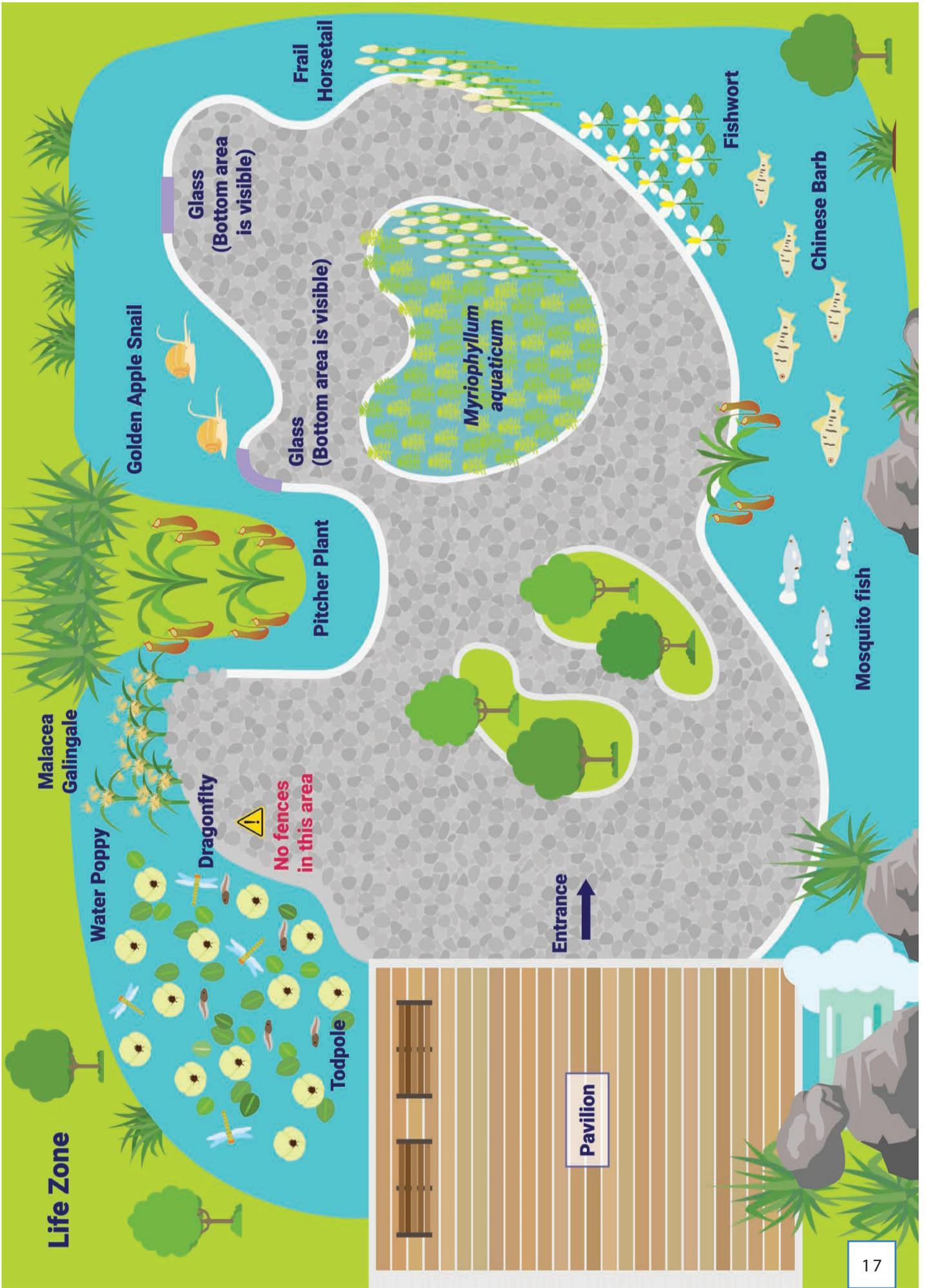
Activities “Who Lives Here” and “Underwater Friends” can be conducted in this area.

<b>Area Introduction</b>	<ul style="list-style-type: none"><li>• Pond is a kind of wetlands. Life Zone simulates a pond habitat, with shallow water and the bottom usually covered with soil.</li><li>• Over 100 species of aquatic plants grow in the Hong Kong Wetland Park. These plants are distributed in different living environments according to their living habits. Several special aquatic plants can be found in the Life Zone such as Frail Horsetail, <i>Myriophyllum aquaticum</i>, Malacea Galingale, Water Poppy, Water Shamrock, and Small Yellow Bladderwort, etc. Ring-shaped ponds are home to many different kinds of small aquatic animals, the most common ones are Golden Apple Snails (invasive alien species), dragonflies, damselflies, Water Skater, tadpoles and different freshwater fish such as Chinese Bard, Mosquito fish, etc. Sunlight can penetrate directly to the bottom of the pond, allowing aquatic plants to conduct photosynthesis to produce nutrients. This provides comfortable habitats and food for small animals living therein.</li><li>• In addition to aquatic plants, herbs are also planted, such as Fishwort and Pitcher Plant. The unique appearance of these plants can easily arouse children’s interest in learning and curiosity about nature.</li></ul>
<b>Safety Precautions</b>	<ul style="list-style-type: none"><li>• Teachers should remind children to give due regard to safety when approaching the water’s edge without fences.</li><li>• When doing observation near the water’s edge, let children squat down side by side and remind them to observe order so as to avoid accidents.</li><li>• Beware of uneven and slippery ground.</li></ul>
<b>Design Rationale</b>	<ul style="list-style-type: none"><li>• Make good use of resources from the Hong Kong Wetland Park and encourage children to freely explore the surrounding environment in the Life Zone. Teachers should make good use of children’s learning characteristics like their curiosity, love of questioning and exploratory spirits as a bridge to arouse their interest in exploring nature through stories, questions and games, and learn to use their senses and tools to explore the surroundings.</li><li>• In the first activity “Who Lives Here”, children can get to know the wetland plants and their relationship with our daily lives, as well as to learn how to protect the environment through discussions and sharing.</li><li>• In the second activity “Underwater Friends”, children can observe small aquatic animals from different angles, for example, from the water surface or through the transparent glass at the side of the pond. Children can also have an opportunity to use assisting tools to get a closer look at the underwater environment. Through discussions and sharing, children can get to know the small aquatic animals in wetlands and their relationship with our daily lives, as well as the relationships among small aquatic animals, plants and water, so that children can learn how to treasure water resources.</li></ul>

## Teaching Skills

- “Plants” are often encountered in children’s daily lives and commonly used as a theme in the curriculum. Therefore, children have the basic knowledge of plants to certain extent and teachers can arrange the visits as appropriate.
- Prior to the activity, teachers should introduce the Hong Kong Wetland Park and the highlights of Life Zone to children.
- If children discover small aquatic animals during the first activity “Who Lives Here”:
  - Option 1- follow up immediately because the Hong Kong Wetland Park has a lot of scenery and children easily forget what they just saw.
  - Option 2- teacher can flexibly jump to the activity “Underwater Friends” if children are generally more interested in exploring small aquatic animals.
- If “Underwater Friends” is adopted as the first activity, teachers should introduce the Paper Puppet “Dragonfly Dow” before kicking off the activity.
- In the Life Zone, apart from the small aquatic animals to be mainly explored in this activity, children may discover some common wetland insects such as dragonflies, damselflies, butterflies and bees, etc. Teachers may refer to the Teacher’s Supplementary Information Booklet and randomly introduce them. Teachers can also search for related information on the Internet.
- Teachers should allow each group of children to freely decide the quantity of small aquatic animals to be found according to time and progress of activity.
- If various sounds are heard, such as birds singing, cicadas chirping, dragonflies buzzing, etc., teachers can discuss with children about who Dow’s friends are, or conduct discussion and exploration according to children’s interests.
- As a supplementary measure and for reference only, all of the reference questions for teachers do not have “model answers” and can be adapted according to children’s ability.
- Teachers can trim down the activity content according to children’s performance and context.
- According to actual situations and children’s interests, teachers may conduct extended activities at school.





## Activity 1: Who Lives Here

<b>Proposed Class Level</b>	<b>K1</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	6 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Prepared by teachers: <ul style="list-style-type: none"><li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li></ul>
<b>Children’s Developmental Characteristics</b> 3-4 years old	<ul style="list-style-type: none"><li>• Show curiosity about surroundings, able to learn through various senses, enjoy exploration and hands-on experience</li><li>• Start developing the ability to distinguish the differences in appearances of objects</li></ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to briefly know the appearance of plants and the benefits of trees</p> <p><b>[Skill]</b> Children are able to use various senses to explore different parts of the trees</p> <p><b>[Attitude]</b> Children are able to care for trees</p>
<b>Focus of Activity</b>	Enable children to observe and explore the appearances of plants through senses, and have initial understanding of the relationship between trees and human beings, so as to nurture their attitude of care for trees.
<b>Proposed Activity Plan</b> (Procedures)	<b>Introduction</b> Teacher uses the Paper Puppet “Dragonfly Dow” to introduce itself, “Hello everyone! I’m Dow and I live in the Hong Kong Wetland Park - Dow’s Home. I have a lot of friends here. Do you want to know them? Let me take you to the Life Zone!”



### **Process**

- After arriving at the pavilion in the Life Zone, Dow asks children questions as lead-in, “My friends would like to play hide-and-seek with you. Can you find my friends together? You can use your eyes to see where they are, use your fingers to touch them and use your nose to smell them. Then tell me who my friends are.”
- Dow reminds children that they can touch its friends gently and get close to smell them but must not hurt them. Then Dow invites children to explore freely in the designated activity area. (Teacher makes proper demonstrations as appropriate)
- Let's look around, which colour do you see the most? (Teacher can give them more hints to find out Dow's friends based on children's prior knowledge, for example, its leaves are round and grown on trees)
- During the exploration, teachers should remind children not to pick leaves and break branches, encourage children to find out green plants in the Life Zone and take the initiative to share their observations and feelings, and raise questions.

### **Proposed Activity on Sunny Days**

- After searching for a while, teacher leads children to stand in the shade of trees and guide them to express their feelings freely:
  1. How did you feel when you were looking for Dow's friends with the Sun shining on us?
  2. Now we are standing under a leafy tree, how do you feel?
  3. Why do we feel cool under a leafy tree? Why don't we feel hot?
- Tree leaves can block the sun's heat! (Teacher can further encourage children to think about the other benefits of trees, such as providing food and shelter to small animals; trees can provide timber for building houses and fruit trees can provide fruits.) What would happen to small animals and us if there were no trees? (Teacher guides children to care for trees!)

### **Conclusion (Sharing)**

- Teacher leads children to the pavilion and let them share how they discovered the plants.
- Teacher invites them to share how they protected the plants during their exploration. For example,
  - ▶ Touch the plants gently
  - ▶ Do not pick the plants
  - ▶ Do not contaminate the plants' habitat
- Teacher praises them for having observed the codes and protected the trees.

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**Possible Adjustments**

Some children may be scared of touching plants. Teachers can encourage them to try but not to force them. Teachers can guide them to observe and explore using different senses like sight, hearing, smell and touch.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Have you ever seen plants?
- Where did you see them?
- What colours were they?

**During the Activity**

- Would you please find out whom Dow's friend is? How does it look like?
- Where are Dow's friends hiding? Let's find them out. (After finding the leaves, teacher can let children observe the shape and characteristics of the leaves, and praise the performance of children.)
- What are the green things that you see? Are they leaves?
- Where did you see these plants?

**After the Activity**

- Did you find Dow's friends?
- How did you find them?
- Would you care for those plants/small animals?
- How would you care for them?

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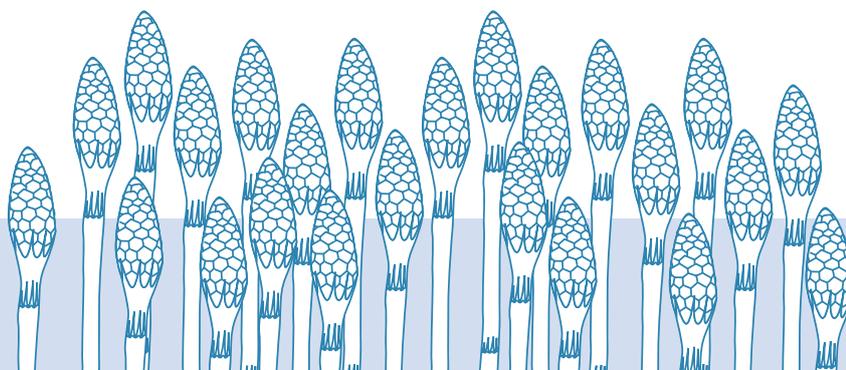
**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

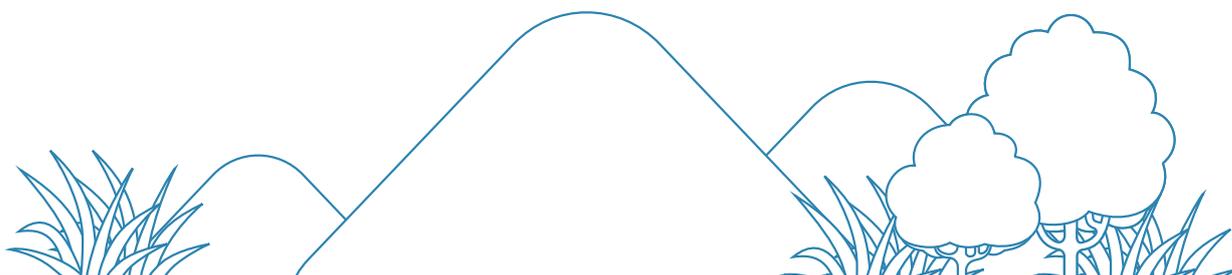
**Planting at School to Beautify the Campus**

After appreciating the plants at the Hong Kong Wetland Park, teachers can plant some easy-to-grow plants in the campus, e.g. beans. Children can take turns to take care of those plants to beautify the campus. Apart from planting, teachers can use books, photographs, etc. for review.

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<b>Proposed Class Level</b>	<b>K2</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	6-8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	<p>Free loan from Hong Kong Wetland Park through advance registration:</p> <ul style="list-style-type: none"> <li>• A magnifying glass per group</li> </ul> <p>Free collection from Hong Kong Wetland Park through advance registration:</p> <ul style="list-style-type: none"> <li>• Children Activity Booklets</li> </ul> <p>Prepared by teachers:</p> <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> <li>• Pictures of Aquatic Plants (Appendix 2)</li> </ul>
<b>Children’s Developmental Characteristics</b> 4-5 years old	<ul style="list-style-type: none"> <li>• Able to ask questions and express their views when they encounter interesting things during exploration</li> <li>• Able to use simple words and phrases to express opinions</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to know the characteristics of different plants and leafy trees can block the sun's heat</p> <p><b>[Skill]</b> Children are able to use simple language to express ideas about finding the surrounding plants and exploration results</p> <p><b>[Attitude]</b> Children are able to care for plants</p>
<b>Focus of Activity</b>	Enable children to observe and explore through senses, able to explore and understand the surrounding plants through observation and comparison, understand the relationship between plants and human beings, so as to nurture the attitude of care for plants.



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**Proposed Activity** **Introduction****Plan**

(Procedures)

Teacher uses the Paper Puppet “Dragonfly Dow” to introduce itself, “Hello everyone! I’m Dow and I live in the Hong Kong Wetland Park - Dow’s Home. I have a lot of friends here. Do you want to know them? Let me take you to the Life Zone!”

**Process**

- After arriving at the pavilion in the Life Zone, Dow asks children questions as lead-in, “Oh, where are my friends? They really love to play the game hide-and-seek with me in the Life Zone. Some of them live nearby but some far away. Now let me show you what they look like (Dow chooses suitable pictures from Appendix 2 (only one part of the plants is shown in the pictures)). Do you know plants? Where do they grow? Now I would like to give you a small task, try to find out my friends shown in the pictures. But each picture only shows a part of my friend, please find them out. After finding them, you can borrow a magnifying glass from the teacher to observe them clearly. What are their living environments? What do they need to grow healthily?”
- Dow gives hints to children: “Apart from using a magnifying glass to observe my friends, you can also touch my friends gently with your fingers (Teacher demonstrates how to touch gently) as my friends have very special appearances. You may also get closer to smell them as some of them release special smells. Can you guess if they smell good or bad? I’m not going to tell you. Please remember not to hurt them!” (Teacher invites children to freely explore interesting plants in the area and let them raise questions and express opinions freely.)
- Based on the children’s responses, teacher can make use of the “Reference Questions for Teachers” in this activity to encourage children to find out interesting plants in the Life Zone and let them ask questions and express opinions freely.

**Get to Know the Benefits of Nature through a Science Experiment**

- After searching for a while, teacher invites children to place their “Children Activity Booklet” on the ground in the sun for 1-2 minutes and then touch it gently and share how it feels.
- Afterwards, ask children to place the booklet in the shade of trees for 1-2 minutes, then touch it gently and share how it feels again.
- Invite children to stand in the sun for 1 minute, then get back into the shade of trees.
- Teacher guides children to talk about the difference between standing in the sun and in the shade of trees, and bring out the benefits of trees to human beings that trees can block the sunlight to provide shades and cooling effects for objects/humans.

### **Conclusion (Discussion and Sharing)**

- Teacher leads children to the pavilion and let them share what they have observed.
- Dow says, “Some of my plant friends are injured! Their leaves are broken, why?” (It would be better if teacher can find a broken leaf in the area as an example) Teacher can guide children to discuss why the plants are injured and randomly point out feasible ways to protect plants in the area (encourage children to express their interesting ideas), so children can know how to protect the nature when being in the nature.
- Teacher can supplement with the following points if applicable:
  - ▶ Respect the nature and do not take anything away, e.g. leaves, soil and pebbles, etc.  
*Reason: Without soil and pebbles, plants cannot grow and small animals have no habitats.*
  - ▶ Do not litter in the park  
*Reason: Plants and small animals need a clean living environment, especially clean water source.*
  - ▶ Do not disturb any animals while appreciating the plants  
*Reason: Plants are one of the animals’ habitats and any disturbance would scare the animals away.*
  - ▶ Do not tear off leaves or damage plants  
*Reason: That will cause the death of plants, so they cannot reproduce new plants.*
- Teacher’s conclusion: From today’s experiment, we experienced the benefits of trees to us. Thus, we must care for the plants in proper ways.



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**Possible Adjustments**

Teachers may guide children to observe the noticeable characteristics of plants, foster their curiosity and exploratory spirits, and help them grasp the ways of pursuing knowledge.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- What are plants?
- Where do plants grow?
- How do plants look like?

**During the Activity**

- What are the interesting plants here?
- What colour is it?
- What do their patterns look like?
- Where did you see this plant?
- Does it have leaves? Where are the leaves?
- Where does it grow? Can you describe it?
- How did you feel about the texture of leaves when you were touching the leaves? Can you describe it?
- Can you compare and contrast different leaves? Are the shapes of all leaves the same?
- Can you guess who grows those plants?

**After the Activity**

- Why were some plants broken?
  - How can we protect plants?
  - What would happen to animals if there were no such plants?
- 

**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

**Planting at school: Compare and Contrast the Growth of Plants in Water and Soil**

Teachers can encourage children to grow plants in water and in soil to beautify the campus and avoid damaging the plants due to their different attributes.

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<b>Proposed Class Level</b>	<b>K3</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• A magnifying glass per group</li> </ul> Prepared by teachers: <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> <li>• Pictures of Aquatic Plants (Appendix 2)</li> <li>• Pictures of Signs (Appendix 3)</li> </ul>
<b>Children’s Developmental Characteristics</b> 5-6 years old	<ul style="list-style-type: none"> <li>• Able to use different adjectives to describe the characteristics of objects</li> <li>• Enjoy cooperative play</li> <li>• Able to recite what happened in a systematic manner</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to understand the habitats and required conditions of different plants</p> <p><b>[Skill]</b> Children are able to explore through different senses, and compare and contrast different kinds of plants</p> <p><b>[Attitude]</b> Children are able to care for and appreciate nature</p>
<b>Focus of Activity</b>	Enable children to explore through various senses, compare and contrast the similarities and differences of the habitats and living conditions of plants, so as to distinguish aquatic plants from herbs and nurture the attitude of care for the environment.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <p>Teacher uses the Paper Puppet “Dragonfly Dow” to introduce itself, “Hello everyone! I’m Dow and I live in the Hong Kong Wetland Park - Dow’s Home. I have a lot of friends here. Do you want to know them? Let me take you to the Life Zone!”</p> <p><b>Process</b></p> <ul style="list-style-type: none"> <li>• After arriving at the pavilion in the Life Zone, teacher shows children the pictures of signs (Appendix 3) and asks them what they are and what they mean. Teacher and Dow invite children to sit down, read the signs and discuss about the message of these signs. (Visitor Codes).</li> </ul>

**Proposed  
Activity Plan**  
(Procedures)

6 Regulations:



Keep quiet,  
do not shout or run



Do not litter. Put litter into  
bins or take it away with  
you



Do not have picnics in  
the park or leave food  
in outdoor areas



Do not pick or damage  
plants



Do not disturb or  
capture animals



Do not touch the wild  
animals, bird feathers or  
their droppings. Wash hands  
right after the activities

- Teacher wraps up this part to help children understand that we can care for the nature if we follow suit.
- Before exploration, Dow asks children questions as lead-in: “Children, I would like to give you a small task. The appearances of friends in the Life Zone are very interesting. Can you guess where they are? I will describe the features and then you need to work in groups of two to find them out.” (Dow chooses suitable pictures from Appendix 2 as hints, e.g., heart-shaped leaves or pen-like leaves, etc.)
- Dow continues, “Some of my friends live nearby but some live far away. If you would like to see their features and various parts clearly, you can use some tools. Do you know what we can use (like a magnifying glass)? Yes, you can borrow it from your teacher!”
- Dow prompts the children, “Apart from using a magnifying glass to observe my friends, you can also touch my friends gently with your fingers as they have very special appearances. You may also get closer to smell them as some of them release special smells. Please remember not to hurt them!” (Teacher demonstrates how to touch gently). Dow invites children to explore freely in the area.
- Based on the children’s responses, teacher can make use of the “Reference Questions for Teachers” in this activity as hints to encourage them to find out, observe and explore other interesting plants in the Life Zone from different angles and let them ask questions and express opinions freely.

**Get to Know the Benefits of Nature through a Science Experiment**

After searching for a while, teacher leads children to stand in the shade of a tree and asks them to guess the temperature of which place is lower, under a tree or in the sun, and share their observations and feelings.

- Reason of temperature variation:
  - ▶ Trees can block the sunlight to provide shade which can keep objects/humans cool.
- Extended discussion on the other benefits of trees:
  - ▶ Greenery, making furniture, providing food

### **Conclusion (Discussion and Sharing)**

- Teacher leads children to the pavilion and let them share about the plants they have found in the area. Teachers and children can get to know and make comparisons of the appearances, features, structures, habitats and living conditions of plants and discuss their relationship with our daily lives. For example:
  - ▶ Using Malacea Galingale to wrap rice dumplings
  - ▶ Wrapping rice with leaves of Indian Lotus
  - ▶ Putting *Myriophyllum aquaticum* in the fish tank at home
- Teacher invites children to discuss: Who is responsible for protecting nature? What would happen if we didn't protect the plants and natural environment? (Children discuss freely) What are other ways of protecting plants? (Children discuss freely and teacher can help children understand ways of protecting the nature according to children's ability)
- Teacher can supplement with the following points if applicable:
  - ▶ Respect the nature and do not take anything away, e.g. leaves, soil and pebbles, etc.  
*Reason: Without soil and pebbles, plants cannot grow and small animals have no habitats.*
  - ▶ Do not litter in the park  
*Reason: Plants and small animals need a clean living environment, especially clean water source.*
  - ▶ Do not disturb any animals while appreciating the plants  
*Reason: Plants are one of the animals' habitats and any disturbance would scare the animals away.*
  - ▶ Do not tear off leaves or damage plants  
*Reason: That will cause the death of plants, so they cannot reproduce new plants.*
- Teacher makes a conclusion that environmental protection begins with each of us:
  - ▶ Environmental Perspective  
Trees can absorb the pollutants in the air, produce fresh air and provide beautiful scenery for our appreciation.
  - ▶ Ecological Perspective  
If plants were damaged, small animals would lose suitable habitats and food. If their homes were filled with rubbish, the water source would be polluted and they would eat some bad food.
  - ▶ Everyday Life Perspective  
Without trees, there would be less greenery and wooden furniture, and no food for us.

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#### **Possible Adjustments**

Children may not know how to use the magnifying glass properly. Teachers should demonstrate how to use the tool for observation to individual child.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Do you know what plants are?
- What plants have you seen? Do they have scents?
- What parts do plants have?

**During the Activity**

- What does it look like?
- What can you smell from the plants? What is it like?
- Where did you see this plant?
- Does it have leaves? Where are the leaves?
- Where does it grow? Can you describe it?
- What are the differences between their habitats? Please elaborate with comparisons.
- How did you feel when you touched it?
- How can you smell the leaves?
- Do all the plants have the same appearances? Can you describe their differences?
- How would you protect it?
- Can you take the plants home? Why?
- Do plants need to be taken care of by human beings? Why?

**After the Activity**

- Who can protect these plants and how?
- Apart from the Visitor Codes, what are the other suggestions for protecting plants?
- Do you know the relationship between these plants and our daily lives?
- Do you know the relationship between these plants and small animals?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school based-curriculum, for example:

**Wrapping of Rice Dumplings**

- What kind of food is wrapped in plant leaves? (For example, rice dumplings of various styles)
- To explore with children about what kind of leaves are used for wrapping rice dumplings?
- What are the differences between dried and fresh Malacea Galingale from observation?
- Invite parents to organise an activity "Wrapping Rice Dumplings" together so as to help children experience the relationship between plants and our daily lives.

## Activity 2: Underwater Friends

<b>Proposed Class Level</b>	<b>K1</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	6 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Prepared by teachers: <ul style="list-style-type: none"><li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li></ul>
<b>Children’s Developmental Characteristics</b> 3-4 years old	<ul style="list-style-type: none"><li>• Show curiosity about surroundings, able to learn through various senses, enjoy exploration and hands-on experience</li><li>• Start developing the ability to distinguish the differences in appearances of objects</li></ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to briefly know various small aquatic animals</p> <p><b>[Skill]</b> Children are able to use their sense of sight to observe the appearance and characteristics of small aquatic animals</p> <p><b>[Attitude]</b> Children are able to care for small aquatic animals</p>
<b>Focus of Activity</b>	Enable children to use sense of sight to observe, explore and get to know the ecosystem in water in order to arouse their interest, so as to nurture their care for various small aquatic animals.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <ul style="list-style-type: none"><li>• Teacher continues to use the Paper Puppet “Dragonfly Dow” to accompany children to visit other friends in the Life Zone.</li><li>• Dow guides children to get near the pond for exploration and observe the small aquatic animals. It says, “I have some good friends living in the water, do you know what small aquatic animals are? Their talent is swimming. Have you seen insects before? I am an insect and my babies live in water, too. Now I would like to give you a small task, help me find my aquatic friends. Can you guess who they are? Please look for them quietly because my friends and babies are extremely afraid of noise. They would run away if they hear sounds.</li></ul>

## Proposed Activity Process

### Plan (Procedures)

- In the course of exploration, teacher should remind children of the following codes to help them understand the methods of protecting small aquatic animals and pay attention to safety:
  - ▶ Speak softly  
*Reason: Small aquatic animals will be disturbed.*
  - ▶ Do not touch or capture the small aquatic animals  
*Reason: That will cause harm to small aquatic animals.*
  - ▶ Keep your mouth away from pond water  
*Reason: Pond water may contain a lot of germs.*
  - ▶ Do not go into the pond  
*Reason: The small aquatic animals need clean water source. They would not be able to survive if the water was polluted. It is also very dangerous for children to play in the pond as they may get drowned.*
- Children can start performing the small task of looking for the friends in Life Zone freely after understanding the codes.
- Based on the children's responses, teacher can make use of the "Reference Questions for Teachers" in this activity to encourage children to look for small animals from water's edge, surface, or other places in the area, as well as encourage them to proactively share their observation findings and feelings, and raise questions.

### Conclusion (Sharing)

- Teacher leads children to the pavilion and let them share how they discovered the small animals.
- Invite children to give a brief account of the living environment of small aquatic animals. For example: there are aquatic plants, clean water, and soil, etc. Teacher highlights that plants can provide food to small animals and clean water source enables them to live healthily, so we must protect nature. And some small aquatic animals are very useful to human beings. For example, Dragonfly Dow is a carnivorous insect which catches mosquitoes, flies and aphids for food. Therefore, it plays an important role in maintaining the ecological balance.
- Finally, teacher invites children to talk about how they protected the small aquatic animals and kept the pond water clean during the activity. (Children answer freely) Teacher praises them.
  - ▶ Speak softly
  - ▶ Do not touch or capture the small aquatic animals
  - ▶ Do not pollute the pond water by throwing rubbish into it

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**Possible Adjustments**

Small animals are too small in size that children may have difficulty in focusing on observation. Teachers can use interesting methods or simple hints to guide the children to observe, such as for the appearances of small animals, children can look at the animals' body, colour, eyes, ears, mouth, nose, etc. For living habits, children can observe their feeding, walking and sleeping habits, etc. Children can also observe the similarities and differences of two kinds of small animals by comparing and contrasting their external features, sounds, living environments, and walking / swimming postures.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Do you know what small aquatic animals are? Where did you see them?
- Have you seen insects before?
- What colours are insects/small aquatic animals?

**During the Activity**

- Is there anything moving/swimming in the pond?
- What do you see?
- Can you guess what they are?
- Where are their hands and feet?
- Where are their homes? Are there any differences between their homes and yours?
- Do they have ears? Are their ears same as ours?

**After the Activity**

- Do they look different from you? What are the differences?
- Do they eat? If yes, what do they eat?
- How do they eat?
- Can they hear our voices?
- How do they walk? Are there any differences from us?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school based-curriculum, for example:

- Children can circle the small animals/plants that they saw today and colour their favourite ones in the Children Activity Booklet.
  - Teachers can use storybooks, picture books or pet fish to help children observe and understand the characteristics of small aquatic animals.
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<b>Proposed Class Level</b>	<b>K2</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	6-8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• An underwater scope</li> </ul> Prepared by teachers : <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> </ul>
<b>Children’s Developmental Characteristics</b> 4-5 years old	<ul style="list-style-type: none"> <li>• Able to ask questions and express their views when they encounter interesting things during exploration</li> <li>• Able to use simple words and phrases to express opinions</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to briefly know the habitats and living conditions of small aquatic animals</p> <p><b>[Skill]</b> Children are able to use simple language to express the exploration results and their ideas on finding the small aquatic animals and making simple comparisons</p> <p><b>[Attitude]</b> Children are able to care for small aquatic animals and protect water resources</p>
<b>Focus of Activity</b>	Enable children to observe the habitats and living conditions of small aquatic animals through sense of sight and different tools, briefly describe the similarities and differences of appearances and characteristics among small aquatic animals, so as to nurture children’s attitude of care for small aquatic animals and protection of water resources.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Teacher continues to use the Paper Puppet “Dragonfly Dow” to accompany children to visit other friends in the Life Zone.</li> <li>• Dow leads children to get near the pond and asks, “Children, do you know what small aquatic animals are? Which are they? Can you give some examples?” (Children answer freely)</li> <li>• Teacher says, “Yes, small fish and turtles are both small aquatic animals.” Teacher asks further, “Do you know what insects are?” (Children answer freely) Teacher says, “Yes, the majority of insects usually fly in the sky but actually there are insects living in water. Have you seen them? Where did you see them?”</li> <li>• Teacher invites children to complete a small task which is to explore freely in the area and find aquatic animals /insects.</li> </ul>

## Proposed Activity Plan

(Procedures)

### Process

- In the course of exploration, teacher should remind children of the following codes to help them understand the methods of protecting small aquatic animals and pay attention to safety:
    - ▶ Speak softly  
*Reason: Small aquatic animals will be disturbed.*
    - ▶ Do not touch or capture the small aquatic animals  
*Reason: That will cause harm to small aquatic animals.*
    - ▶ Keep your mouth away from pond water  
*Reason: Pond water may contain a lot of germs.*
    - ▶ Do not go into the pond  
*Reason: The small aquatic animals need clean water source. They would not be able to survive if the water was polluted. It is also very dangerous for children to play in the pond as they may get drowned.*
    - ▶ Please inform the staff for cleaning if any rubbish is found in the water
  - Children start looking for Dow's friends freely after understanding the codes.
  - During the exploration, if children cannot see the small aquatic animals clearly, teacher should ask for the reason and then asks them, "Some small animals are very tiny that we may not be able to see them clearly with our eyes. Children, can you guess how we can see clearly?" (Children discuss freely)
  - Dow shows an underwater scope and demonstrates how to use it to observe the form of small aquatic animals in the water. Teacher should remind children to use the underwater scope properly to avoid harm to the small aquatic animals.
  - Dow says, "I would like to invite each group to find one of my aquatic friends, remember its appearance and how it swims. Later you can share with other children to see how they are different from one another."  
For instance,
    - ▶ It is the smallest but it swims the fastest
    - ▶ It is the biggest but it swims the slowest
    - ▶ It is a small long fish with an upturned mouth
    - ▶ It has a big shell and moves very slowly
    - ▶ It has 4 long legs which can jump on the water surface
    - ▶ It has a big head with a black tail and it swims very fast
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**Proposed Activity Plan**  
(Procedures)

- Based on the children’s responses, teacher can make use of the “Reference Questions for Teachers” in this activity to encourage children to find various small aquatic animals in the Life Zone and observe their characteristics and habitats. Meanwhile, teacher can also encourage them to proactively share their observation findings and feelings, and raise questions.

**Conclusion (Discussion and Sharing)**

- Teacher leads children to the pavilion and let them share their findings, so as to get to know the appearances, characteristics and habitats of Dow’s friends, as well as how they’re related to our daily lives.
- Compare and contrast the living environments of small aquatic animals and human beings, then predict how different environments affect the small aquatic animals, so as to bring out how to protect water resources. “You have just observed the living environments of small aquatic animals, how are they different from those of human beings?” (Children answer freely)

The living environment of small aquatic animals are as follows:

- ▶ In the water
- ▶ With various aquatic plants
- ▶ Aquatic plants provide food and habitats, etc. to small aquatic animals
- ▶ Subject to constraints like air, sunlight, water temperature, water quality, etc.

The living environment of human beings are as follows:

- ▶ Houses on land
- ▶ With air, water and food

“What would happen to small aquatic animals and plants if the pond was empty, or the water was very dirty, or there was no soil in the pond one day?” (Children answer freely)

“Can you share about how to protect nature?” (Children answer freely)

- ▶ Do not throw rubbish into water
  - ▶ Do not play in the water pond, fish pond and wetland
  - ▶ Do not pick the aquatic plants (because they provide food, shelter, and oxygen to the small aquatic animals)
- Lastly, teacher invites children to talk about how they protected the small aquatic animals and kept the pond water clean during the activity. (Children answer freely) Teacher praises them.

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**Possible Adjustments**

Teachers can provide assistance if children are unable to use the underwater scope.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Do you know what insects and small aquatic animals are?
- Have you seen insects that live in water? Where did you see them?
- What colours are the insects/small aquatic animals?

**During the Activity**

- Do you see anything moving/swimming?
- What are they doing? Are they eating?
- Where do they live?
- How do they move?
- How do they eat?
- Why are their bodies so small/ big?
- Why can they only live in water?

**After the Activity**

- Who can help us clean up the rubbish in the pond?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Children can circle the small animals/plants that they saw today, draw their favourite ones in the Children Activity Booklet and briefly describe them.



<b>Proposed Class Level</b>	<b>K3</b>
<b>Name of Area</b>	Life Zone
<b>Proposed Number of Participants</b>	8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• A magnifying glass per group</li> <li>• An underwater scope</li> </ul> Prepared by teachers: <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> <li>• Pictures of Aquatic Animals (Appendix 4)</li> <li>• Picture of Food Web in a Pond (Appendix 5)</li> <li>• Picture of Mosquito fish (Appendix 6)</li> </ul>
<b>Children’s Developmental Characteristics</b> 5-6 years old	<ul style="list-style-type: none"> <li>• Able to use different adjectives to describe the characteristics of objects</li> <li>• Enjoy cooperative play</li> <li>• Able to recite what happened in a systematic manner</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to understand the habitats and living conditions of small aquatic animals</p> <p><b>[Skill]</b> Children are able to share with their peers about the importance of environment to small aquatic animals based on their prediction</p> <p><b>[Attitude]</b> Children are able to care for and appreciate nature</p>
<b>Focus of Activity</b>	Enable children to explore the relationship between small aquatic animals and their habitats through sense of sight and different tools, share their views with their peers so as to nurture their awareness of care for and appreciate nature.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Teacher continues to use the Paper Puppet “Dragonfly Dow” to accompany children to visit other friends in the Life Zone.</li> <li>• After arriving at the pavilion for a while, Dow asks children questions as lead-in, “Oh, where are my friends? They really love to play the game hide-and-seek with me in the Life Zone. Some of them are very close but some of them far away. Now let me show you what they look like (Dow chooses suitable pictures from Appendix 4 (only one part of the animals is shown in the pictures)), today’s small task is to help me find them out. As each picture only shows a part of my friend, please find them out. After finding them, you can borrow a magnifying glass from the teacher if you can’t see clearly. You also need to see what their living environments are like.”</li> </ul>

**Proposed Activity Plan**  
(Procedures)

**Process**

- Before the exploration, teachers should remind children of the following codes to help them understand the methods of protecting aquatic animals and pay attention to safety:
  - ▶ Speak softly  
*Reason: Small aquatic animals will be disturbed.*
  - ▶ Do not put your hands into the water
  - ▶ Do not touch or capture the small aquatic animals  
*Reason: That will cause harm to small aquatic animals.*
  - ▶ Keep your mouth away from pond water  
*Reason: Pond water may contain a lot of germs.*
  - ▶ Do not go into the pond  
*Reason: The small aquatic animals need clean water source. They would not be able to survive if the water was polluted. It is also very dangerous for children to play in the pond as they may get drowned.*
  - ▶ Please inform the staff for cleaning if any rubbish is found in the water
  - ▶ Do not casually put any objects into the pond  
*Reason: The water will be polluted.*
- During the exploration, Dow leads the children to get near the pond and asks, “Do you see them? It is alright if you don’t. You can borrow an underwater scope from the teacher to find them out. After finding them, please also see what their living environments are like.”
- Teacher shows them an underwater scope and demonstrates how to use it to observe the small aquatic animals. Teacher should remind children to use the underwater scope properly to avoid harm to the small aquatic animals.
- Based on the children’s responses, teacher can make use of the “Reference Questions for Teachers” in this activity to encourage children to find out the appearances, characteristics, body structures and habitats of interesting small aquatic animals in the Life Zone. Meanwhile, teacher can also encourage them to proactively share their observation findings and feelings, and raise questions.
- Dow says, “Children, you need to care for my aquatic friends. Children, do you know how we should care for them? Do you know what the most important element to their living environment is?” (Children answer freely)

**Conclusion (Discussion and Sharing)**

- Teacher leads children to the pavilion and let them share their findings.
- Teacher shows children the Picture of Food Web in a Pond (Appendix 5) and invites them to guess the relationship among the aquatic plants, small aquatic animals, water and soil. (Children answer freely)
- Wetlands are very useful to human beings and nature. What could we do if the sky stopped raining and there was less water on the earth?

**Proposed Activity Plan**

(Procedures)

- Teacher discusses with children on how to protect and treasure water resources in our daily lives.

**On a Personal Level**

- ▶ Do not throw rubbish into water ponds, fish ponds and wetlands
- ▶ Take showers instead of baths and shorten the bathing time
- ▶ Drink up all the water you poured out
- ▶ Treasure the drinking water, do not keep the tap running (especially when brushing teeth)
- ▶ Don't play with water to avoid water wastage

**At the Family/School Level**

- ▶ Clean with homemade natural detergents
  - ▶ Recommend family members to keep water after washing rice, vegetables or fruits for watering plants
  - ▶ Turn on washing machines only when a considerable amount of clothing is collected
  - ▶ Reduce water consumption by using dual flush toilets
  - ▶ Treasure the drinking water, do not keep the tap running (especially when brushing teeth, washing rice, fruits and vegetables, and dishes)
- Finally, teacher invites children to talk about how they protected the small aquatic animals and kept the pond water clean during the activity. Teacher praises them.

**Possible Adjustments**

- During the sharing sessions, children may not be able to fully express their ideas. Teachers can give hints to help children express themselves.
- Guide children to observe, as well as to observe and think at the same time by optimal use of their eyes for seeing, ears for hearing, noses for smelling and mouths for asking questions. After conducting observation and exploration, invite children to consider what to share about their observations. Children's sharing can also help teacher understand their ideas.

**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- What insects do you know?
- Do you know any small animals that live in water? Which are they?

**During the Activity**

- What kind of interesting things have you found?
- Is there anything moving/swimming?
- Can you guess/think about where these small animals come from?
- Have you noticed if they have hands? Can you guess how they greet their good friends? Can you demonstrate?
- What were they like when they were babies? Would they be the same as human babies?
- How would you protect their living environments?

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

**After the Activity**

- This is a Mosquito fish (Appendix 6). Can you guess what it eats? How is it beneficial to us?
- Do you know that they are alien species? What are their impacts on native species?
- Are they living happily here? Why?
- Can we bring them home as pets? Why?
- How would you and your family protect and treasure water resources together?
- How would you protect and treasure water resources?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school based curriculum, for example:

- Children can circle the small animals/plants that they saw today, draw their favourite ones in the Children Activity Booklet and make brief description and review to adults.
- At school, teacher can organise some activities for conveying the related message, such as poster design or slogan design on environmental protection to spread the message.

*Referring to picture of 'Food Web in a Pond' in Appendix 5, the following information is prepared for teacher's reference and the information can be adapted into extended learning materials:*

- ▶ *Wetlands can store water*
- ▶ *Wetlands provide food to humans and small animals*
- ▶ *Aquatic plants and small animals provide food to the insects*

*(Some plants grow in water while some plants thrive in wet soil. Those plants produce food and nutrients for aquatic animals using sunlight. Some aquatic plants can remove the impurities in the water, and some fish can eat up the rotten food in the pond. The process helps keep the pond water clean, which allows plants and animals to prosper and reproduce. The most interesting feature of wetlands is that it serves as a giant sponge that retains water and allows different aquatic animals and plants to live in it.)*

## B. Dipping Pond

Activities “Exploring the Dipping Pond” and “Beautiful Nature” can be conducted in this area.

### Area Introduction

- The Hong Kong Wetland Park supports different species of aquatic plants, insects and animals. These animals and plants are distributed in various habitats according to their living habits. In the Dipping Pond, the common aquatic plants include Water Lily and Indian Lotus which attract insects such as dragonflies, damselflies and butterflies, etc. Visitors can enjoy the blooming of Water Lily and Indian Lotus in the Dipping Pond from May to October every year.

### Safety Precautions

- Teachers should remind children to give due regard to safety when approaching the water’s edge without fixed fences.
- The Dipping Pond is surrounded by fences, but there is only a rope on the side of Indian Lotus and Water Lily. Teachers must remind children not to go near the rope and should designate an area for observation.
- When doing observation near the water’s edge, let children squat down side by side and remind them to observe order so as to avoid accidents.
- Teachers should let children choose any spots in the pavilion for sketching, but standing on the bench is not allowed.
- Beware of slippery ground.
- Teachers need to pay attention to the gaps between the boards in the pavilion and remind children not to drop any pencils into the Dipping Pond by accident as it will affect the growth of aquatic animals and plants. If a pencil is dropped into the Dipping Pond by accident, do not attempt to retrieve it by oneself, but should notify the security guard / staff nearby immediately for follow-up.

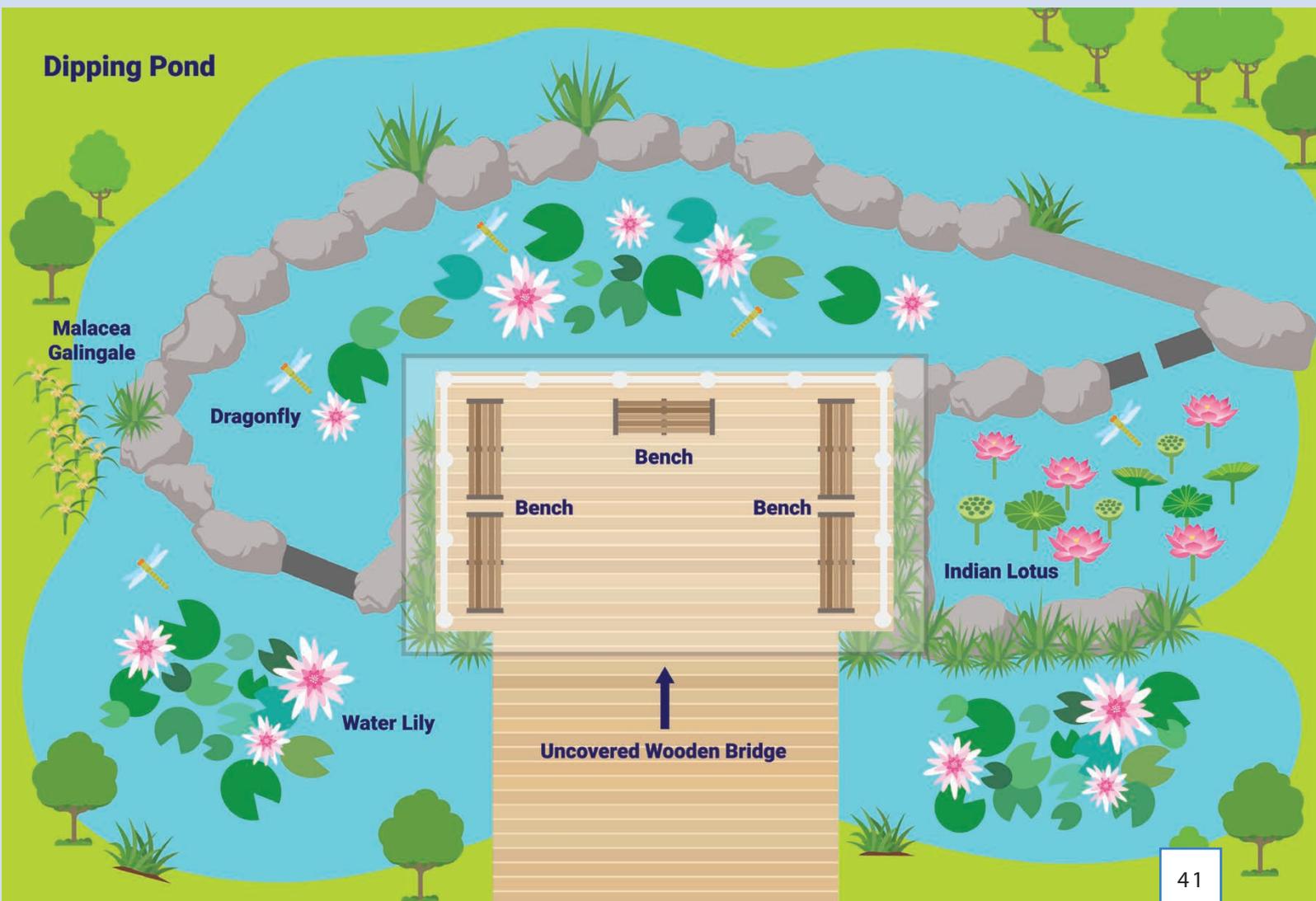
### Design Rationale

- In the Dipping Pond, children can freely explore and share about the natural environment they have seen, so as to build up the concept of protecting the nature.
- In the third activity “Exploring the Dipping Pond”, children can use senses to observe the environment, feel and appreciate the beautiful scenery of nature, and learn to care for the environment.
- In the fourth activity “Beautiful Nature”, children can sketch in the natural environment so as to express their feelings. Not only can it reinforce their impression of the Dipping Pond, but it can also encourage them to share their experience about the visit. This brings out the co-existence of different small animals and plants, the strengthening of the message on care for nature and the understanding of the ways of protecting nature.

## Teaching Skills

- If various sounds are heard, such as birds singing, cicadas chirping, dragonflies buzzing, etc., teachers can discuss with children about who Dow's friends are, or conduct discussion and exploration according to children's interests.
- As a supplementary measure and for reference only, all of the reference questions for teachers do not have "model answers" and can be adapted according to children's ability.
- Teachers can trim down the activity content according to children's performance and context.
- Teachers should allow each group of children to freely decide the quantity of beautiful sceneries to be found according to time and progress of activity.
- For the fourth activity "Beautiful Nature", the Hong Kong Wetland Park can only provide up to 60 sets of A4-sized clipboards with a multi-coloured pencil attached. It is suggested that children can take turns to use them when needed.
- According to actual situations and children's interests, teachers may conduct extended activities at school.

## Dipping Pond



## Activity 3: Exploring the Dipping Pond

<b>Proposed Class Level</b>	<b>K1</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	6 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Prepared by teachers: <ul style="list-style-type: none"><li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li><li>• A camera</li></ul>
<b>Children’s Developmental Characteristics</b> 3-4 years old	<ul style="list-style-type: none"><li>• Show curiosity about surroundings, able to learn through various senses, enjoy exploration and hands-on experience</li><li>• Start developing the ability to distinguish the differences in appearances of objects</li></ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to briefly know the appearances and characteristics of aquatic plants and small animals in the Dipping Pond</p> <p><b>[Skill]</b> Children are able to use their senses to observe and explore the environment in the Dipping Pond</p> <p><b>[Attitude]</b> Children are able to appreciate the forms of different plants</p>
<b>Focus of Activity</b>	Enable children to observe and explore different sceneries in the Dipping Pond through senses.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <p>Teacher uses the Paper Puppet “Dragonfly Dow” to lead children to sit down in the pavilion of the Dipping Pond. Dow says, “Children, this is the Dipping Pond and I would like to invite my good friends to visit here. They called to ask what they would see in the Dipping Pond. Now I would like to give you a small task, which places will you introduce to them for a visit?”</p> <p><b>Process</b></p> <ul style="list-style-type: none"><li>• Dow says, “Children, let’s play a game, you quietly observe the surrounding environment, then share with us the scenery you’ve seen 2 minutes later. (Teacher reminds children to keep quiet)</li></ul>

**Proposed Activity Plan**  
(Procedures)

After their observation, Dow can ask them:

- ▶ Do you know what kind of small animal it is?
  - ▶ What is the appearance of the small animal?
  - ▶ Where does it live?
  - ▶ What is that plant?
  - ▶ What is the appearance of the plant? Where does it grow?
- Dow says, "Children, what plants did you see? They can be something with leaves, flowers, and grass. Let's find the most beautiful plant. Which plant do you think is the most beautiful one? (Teacher encourages children to point at it or say it)

**After sharing, ask children to hear the nature**

- Dow says, "Children, listen to the nature quietly, then I will ask you to share with us what you've heard 1 minute later. (Teacher reminds children to keep quiet)

Afterwards, Dow can ask them:

- ▶ What sound did you hear?
- ▶ Where did the sounds come from?
- ▶ Can you guess who made that sound?
- ▶ Can you imitate that sound?

**Conclusion (Sharing)**

- Dow says, "The Dipping Pond is beautiful, apart from flowers, grass and trees, there are also various insects living in the Dipping Pond. With birds' singing, it is like a beautiful picture of nature. Do you want to bring this picture of nature home?"
- Dow continues to ask, "Do you want to bring these plants, insects and birds home? Can you?" If children say "no", ask them to provide reasons freely and revisit the codes on care for nature from activity 1 "Who Lives Here?" and activity 2 "Underwater Friends":
  - ▶ Speak softly
  - ▶ Touch the plants gently
  - ▶ Do not pick the plants
  - ▶ Do not contaminate the plants' habitat
  - ▶ Do not touch or capture the small aquatic animals
  - ▶ Do not catch the insects
- After sharing, Dow says, "Thank you for introducing the beautiful plants in the Dipping Pond. My friends would love them. We have to take good care of nature, let's take a group photograph with our own poses and share it at home/school!"

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**Possible Adjustments**

Children may not be able to specifically describe the source of sounds. Teachers can encourage them to imitate the sound and guide them to share.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Which thing do you think is the most beautiful?
- Do you know what animals/ plants are?
- How do birds sing?

**During the Activity**

- What do you see in the Dipping Pond?
- Do you see plants? Where are they?
- Where does it grow?
- What is its appearance?
- Do leaves look the same? What are the differences?

**After the Activity**

- Can you bring these plants home? Why?
  - Where is the most beautiful plant?
  - Do plants make sounds? How? (Make the sounds as if the wind blew and leaves shook)
  - If you were a bird/ Dragonfly/ Water Lily/ Indian Lotus, would you like to live here? Why?
- 

**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teacher can let children draw the most beautiful thing in “Time for Sharing” of the Children Activity Booklet in their own ways and encourage them to share with their classmates/teachers/parents.
-

<b>Proposed Class Level</b>	<b>K2</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	6-8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Prepared by teachers: <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> <li>• A camera</li> </ul>
<b>Children’s Developmental Characteristics</b> 4-5 years old	<ul style="list-style-type: none"> <li>• Able to ask questions and express their views when they encounter interesting things during exploration</li> <li>• Able to use limited words and phrases to express opinions</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to briefly know the plants and animals in water and on land</p> <p><b>[Skill]</b> Children are able to briefly describe their findings of exploring the nature</p> <p><b>[Attitude]</b> Children are able to care for plants and animals</p>
<b>Focus of Activity</b>	Enable children to observe and explore the surrounding environment of the Dipping Pond through senses, then share about its beauty and consider ways of protecting the nature.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <p>Teacher uses the Paper Puppet “Dragonfly Dow” to lead children to sit down in the pavilion of the Dipping Pond. Dow says to the children, “Children, this is the Dipping Pond and I would like to invite my good friends to visit here. They called to ask what they would see in the Dipping Pond. Now I would like to give you a small task. Can you look around and tell me what you see?”</p> <p><b>Process</b></p> <ul style="list-style-type: none"> <li>• Dow says, “Children, let’s play a game, you quietly observe the surrounding environment, you can use eyes to see, ears to hear the nature and nose to smell the air. You would be invited to share with us 2 minutes later. (Teacher reminds children to keep quiet)</li> </ul>

**Proposed Activity Plan**  
(Procedures)

After their observation and exploration, Dow can ask them:

- ▶ What did you see?
- ▶ Did you see any small animals? What are they? Where?
- ▶ What are the appearances of plants in the Dipping Pond? Where do they grow?
- ▶ What are the differences between the plants in the Dipping Pond and Life Zone?
- ▶ What sound did you hear? What was it like? Where did it come from?
- ▶ How many types of sounds were there? Who made those sounds?
- ▶ Is there any scent in the Dipping Pond? Can you smell it? What is it like?
- ▶ Which thing do you think is the most beautiful?

**Conclusion (Discussion and Sharing)**

- Dow says, “The Dipping Pond is beautiful, apart from flowers, grass and trees, there are also various insects living in the Dipping Pond. With birds’ singing, it is like a beautiful picture of nature. Do you wish this beautiful environment would disappear? Why?” (Children answer freely)
- After sharing, Dow says, “If we wish to preserve the beautiful scenery, we need to take good care of it. Do you remember what we need to do?” Then revisit the codes on care for nature from activity 1 “Who Lives Here?” and activity 2 “Underwater Friends”:
  - ▶ Respect the nature and do not take anything away, such as leaves, soil and pebbles, etc.
  - ▶ Do not litter in the park
  - ▶ Do not pick the aquatic plants
  - ▶ Do not disturb any animals while appreciating the plants
  - ▶ Do not tear off leaves or damage plants
  - ▶ Do not throw rubbish into water
  - ▶ Do not play in the water pond, fish pond and wetland
  - ▶ Do not capture insects
- Dow says, “Thank you for introducing the beautiful places in the Dipping Pond. Let’s come up with our own poses and take a group photograph with the beautiful nature!”

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**Possible Adjustments**

Children may not be able to specifically tell the codes on care for nature and teachers can guide them as appropriate.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- What scenery do you think is the most beautiful?
- Do you know what small animals/ plants are?
- Have you heard insects would make sounds? Can you imitate their sounds?

**During the Activity**

- What small animals do you see?
- What plants do you see?
- What is its appearance?
- Where does it grow?
- Do the plants you saw have leaves? Where are the leaves?

**After the Activity**

- What are the differences between the plants/small animals in the Dipping Pond and Life Zone?
- If we grow the aquatic plants in soil, can you guess what would happen?
- Can you compare and contrast different leaves? Are they all the same?
- Can you bring the plants home? Why?
- Where is the most beautiful plants/small animal?
- Do you wish to continue to appreciate this beautiful environment? How can we keep it?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teacher can let children draw the most beautiful thing in “Time for Sharing” of the Children Activity Booklet in their own ways and encourage them to share with their classmates, teachers, and parents.
  - According to children’s interests, teachers can incorporate the exploration findings into other activities such as story sharing to create a pleasant learning atmosphere and enhance their presentation skills, so as to promote whole-person development.
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<b>Proposed Class Level</b>	<b>K3</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Prepared by teachers: <ul style="list-style-type: none"> <li>• Paper Puppet “Dragonfly Dow” (Appendix 1)</li> <li>• A camera</li> </ul>
<b>Children’s Developmental Characteristics</b> 5-6 years old	<ul style="list-style-type: none"> <li>• Able to use different adjectives to describe the characteristics of objects</li> <li>• Enjoy cooperative play</li> <li>• Able to recite what happened in a systematic manner</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to know the plants and animals in water and on land</p> <p><b>[Skill]</b> Children are able to conduct exploration and share their findings with peers</p> <p><b>[Attitude]</b> Children are able to appreciate the beauty of nature from different angles</p>
<b>Focus of Activity</b>	Enable children to observe and explore the surrounding environment of the Dipping Pond through senses, then share about its beauty with peers and propose ways of beautifying the environment.
<b>Proposed Activity Plan</b> (Procedures)	<p><b>Introduction</b></p> <p>Teacher uses the Paper Puppet “Dragonfly Dow” to lead children to sit down in the pavilion of the Dipping Pond. Dow says, “Children, this is the Dipping Pond and I would like to invite my good friends to visit here. They called to ask what they would see in the Dipping Pond. Now I would like to give you a small task. Can you look around and tell me what you see?”</p> <p><b>Process</b></p> <ul style="list-style-type: none"> <li>• Dow says, “Children, please form into groups of 2-3, use different senses to observe and explore the surrounding environment and then share your findings with each other. (Teacher reminds children to keep quiet)</li> </ul> <p>After their observation and exploration, Dow can ask them:</p> <ul style="list-style-type: none"> <li>▶ How did you use your sight, smell and hearing?</li> <li>▶ Do you know what small animals/plants/insects are?</li> </ul>

**Proposed Activity Plan**  
(Procedures)

- ▶ Do all plants / small animals / insects have the same appearances? Can you compare and contrast them and tell us about their differences? Are these plants edible?
- ▶ What are the differences between the environments in the Dipping Pond and Life Zone?
- ▶ What scent can you smell in the Dipping Pond? What does the scent smell like? What kind of smell is it?
- ▶ Why can we smell the scent of leaves?
- ▶ Do all plants release smells?
- ▶ What sound can you hear? What is it like? Who made that sound?
- ▶ What would happen if the beautiful environment disappeared?
- ▶ Do you think the scenery of the Dipping Pond is like a picture? What is it like?

**Conclusion (Discussion and Sharing)**

- Dow encourages children to find the most beautiful object in the Dipping Pond. It can be a flower, a tree, etc. Dow asks the children what they would add to the Dipping Pond if they could add one thing to make it more beautiful. (Children share freely)
- After sharing, Dow says, “If we wish to preserve the beautiful scenery, we need to take good care of it. Do you remember what we need to do?” Then revisit the codes on care for nature from activity 1 “Who Lives Here?” and activity 2 “Underwater Friends”, and further let children answer freely:
  - ▶ Respect the nature and do not take anything away, such as leaves, soil and pebbles, etc.
  - ▶ Do not disturb any animals while appreciating the plants
  - ▶ Do not tear off leaves or damage plants
  - ▶ Do not litter in the park
  - ▶ Do not throw rubbish into water ponds, fish ponds and wetlands
  - ▶ Shorten the shower time
  - ▶ Drink up all the water you poured out
  - ▶ Clean with homemade natural detergents
  - ▶ Recommend family members to keep water after washing vegetables for watering plants
- Finally, Dow says, “You are awesome, children! You have pointed out the most beautiful places of the Dipping Pond. I believe my friends would love to visit the Dipping Pond. ”
- Dow says, “Nature is so beautiful, let’s come up with our own poses and take a group photograph!”

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**Possible Adjustments**

Providing opportunities for children to cooperate with one another, teachers can participate in their discussion and cooperative activities in a timely manner, for example, to help them find good ideas, assign duties and roles to each child. Children can also learn to listen to others' opinions and teachers can guide them in negotiation.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- How do you use your sight, smell and hearing to observe and explore?
- What is special about these small animals/plants?

**During the Activity**

- What are the differences between the environments in the Dipping Pond and Life Zone?
- What scent can you smell in the Dipping Pond? What kind of smell is it?
- Why can we smell the scent of leaves?
- Who made that sound?

**After the Activity**

- Can you smell the scent released by plants?
  - Do all plants have the same appearances? Can you compare and contrast them and tell us about their differences?
  - What sound can you hear? What is it like?
  - What does the scent smell like?
  - How would you feel if the beautiful environment disappeared?
  - Do you think the scenery of the Dipping Pond is like a picture? What is it like?
- 

**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teacher can let children draw the small animals/plants they wish to own in "Time for Sharing" of the Children Activity Booklet and share with their classmates/teachers/parents.
  - According to children's interests, teachers can incorporate the exploration findings into other activities such as story sharing to create a pleasant learning atmosphere and enhance their presentation skills, so as to promote whole-person development.
-

## Activity 4: Beautiful Nature

<b>Proposed Class Level</b>	<b>K1</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	6 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• A4-sized clipboards with a multi-coloured pencil attached</li> </ul> Free collection from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• Children Activity Booklets</li> </ul>
<b>Children’s Developmental Characteristics</b> 3-4 years old	<ul style="list-style-type: none"> <li>• Show curiosity about surroundings, able to learn through various senses, enjoy exploration and hands-on experience</li> <li>• Start developing the ability to distinguish the differences in appearances of objects</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to know the characteristics of the Dipping Pond</p> <p><b>[Skill]</b> Children are able to express what they observed through drawing</p> <p><b>[Attitude]</b> Children are able to enjoy nature</p>
<b>Focus of Activity</b>	Enable children to observe and explore through senses, free to draw and share about their drawings.
<b>Proposed Activity Plan</b> (Procedures)	<ul style="list-style-type: none"> <li>• Teacher can make use of the “Reference Questions for Teachers” in this activity to help children appreciate nature and guide them to the direction for drawing.</li> <li>• Teacher asks them to sit on the floor or benches.</li> <li>• Teacher gives them a small task which is to draw out the scenery they have seen/sounds they have heard in “Nature Appreciation” of the Children Activity Booklet.</li> <li>• Teacher encourages children to suggest ways of protecting nature during the sharing session.</li> <li>• Children share their drawings with teacher. Teacher can make use of the “Reference Questions for Teachers” in this activity to help children share their work.</li> </ul>
<b>Possible Adjustments</b>	Children can only express with simple patterns, teacher can guide them to express their ideas.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- What plants/small animals did you see just now?
- Do you like the scenery in front of you?
- How can we bring this beautiful scenery home to share with family?
- Do you like these plants and small animals?

**After the Activity**

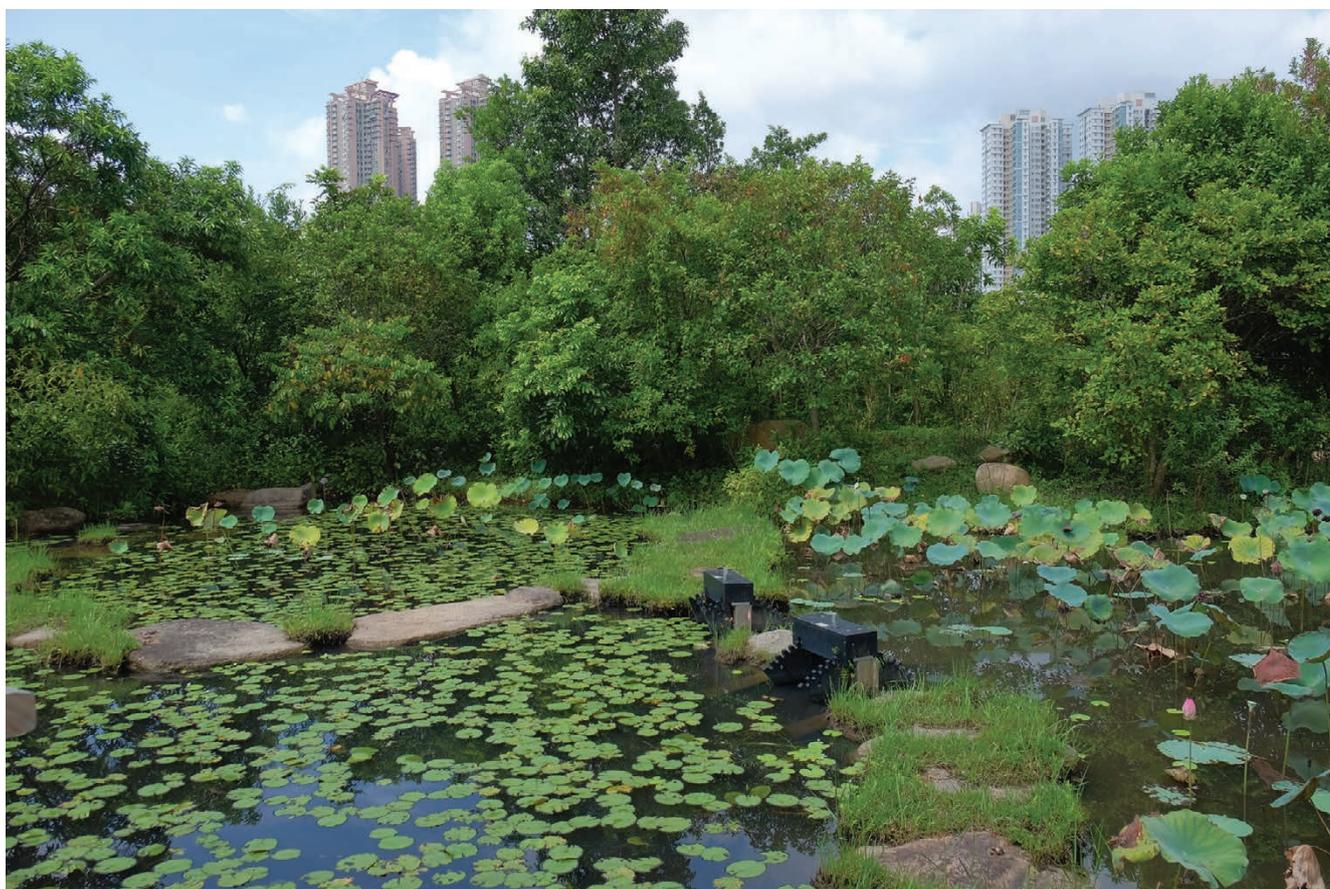
- Can you tell me what you have drawn?
- Do you like this place? Why?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teachers can encourage children to colour their drawings in “Nature Appreciation” for display at school.



<b>Proposed Class Level</b>	<b>K2</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	6-8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• A4-sized clipboards with a multi-coloured pencil attached</li> </ul> Free collection from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• Children Activity Booklets</li> </ul>
<b>Children’s Developmental Characteristics</b> 4-5 years old	<ul style="list-style-type: none"> <li>• Able to ask questions and express their views when they encounter interesting things during exploration</li> <li>• Able to use limited words and phrases to express opinions</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to know the characteristics of the Dipping Pond</p> <p><b>[Skill]</b> Children are able to express what they observed and appreciated through drawing</p> <p><b>[Attitude]</b> Children are able to appreciate nature</p>
<b>Focus of Activity</b>	Enable children to observe and explore through senses, find their favourite spot for sketching and briefly introduce their drawings.
<b>Proposed Activity Plan</b> (Procedures)	<ul style="list-style-type: none"> <li>• Teacher can make use of the “Reference Questions for Teachers” in this activity to help children appreciate nature and guide them to the direction for drawing.</li> <li>• Teacher gives them a small task which is to quietly appreciate the scenery of the Dipping Pond and draw it in “Nature Appreciation” of the Children Activity Booklet.</li> <li>• Teacher suggests that children include ways of protecting nature in their drawings.</li> <li>• Children share their drawings with teacher. Teacher can make use of the “Reference Questions for Teachers” in this activity to help children share their work.</li> </ul>
<b>Possible Adjustments</b>	Children seldom have sketching activities. They may not know how to choose a suitable spot for the activity. Teacher may discuss with children beforehand and let them look around first before choosing a suitable place for the activity.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- Do you like the scenery in front of you?
- How can we bring this beautiful scenery home to share with family?
- Do you like these plants and small animals?
- Do you know how to protect them?

**After the Activity**

- Can you introduce what you have drawn?
- Do you like this place? Why?
- What would happen to those small animals if these plants disappeared?
- What would happen to those plants if these small animals disappeared?

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**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teachers can encourage children to colour their drawings in "Nature Appreciation" for display at school.



<b>Proposed Class Level</b>	<b>K3</b>
<b>Name of Area</b>	Dipping Pond
<b>Proposed Number of Participants</b>	8 people in a group
<b>Duration</b>	Around 30 minutes
<b>Teaching Aids/ Materials</b>	Free loan from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• A4-sized clipboards with a multi-coloured pencil attached</li> </ul> Free collection from Hong Kong Wetland Park through advance registration: <ul style="list-style-type: none"> <li>• Children Activity Booklets</li> </ul>
<b>Children's Developmental Characteristics</b> 5-6 years old	<ul style="list-style-type: none"> <li>• Able to use different adjectives to describe the characteristics of objects</li> <li>• Enjoy cooperative play</li> <li>• Able to recite what happened in a systematic manner</li> </ul>
<b>Proposed Learning Objectives</b>	<p><b>[Knowledge]</b> Children are able to know different ways of care for nature</p> <p><b>[Skill]</b> Children are able to draw their favourite natural scenery with details</p> <p><b>[Attitude]</b> Children are able to appreciate and care for nature</p>
<b>Focus of Activity</b>	Enable children to observe and explore through senses, find their favourite spot for sketching and try to express their ideas on environmental protection through their drawings, and share it with their peers.
<b>Proposed Activity Plan</b> (Procedures)	<ul style="list-style-type: none"> <li>• Teacher can make use of the "Reference Questions for Teachers" in this activity to help children appreciate nature and guide them to the direction for drawing.</li> <li>• Teacher gives them a small task which is to quietly appreciate the scenery of the Dipping Pond and draw it with details in "Nature Appreciation" of the Children Activity Booklet.</li> <li>• Teacher discusses with children on how to make the Wetland Park more beautiful. What can be added to help the small animals live more happily?</li> <li>• Teacher asks them to include ideas on protection of the plants and environment in the Dipping Pond in their drawings.</li> <li>• Children share their drawings with teacher.</li> <li>• Children appreciate peers' artwork and share with teacher.</li> <li>• Teacher can make use of the "Reference Questions for Teachers" in this activity to help children share their work.</li> </ul>

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**Possible Adjustments**

Children may not be able to express their ideas on environmental protection through drawing and teachers do not have to force them to do so. Teachers can let them draw freely.

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**Reference Questions for Teachers**

(Select questions according to circumstances and in line with the proposed learning objectives)

According to children's prior knowledge and skills on the activity, teacher guides them in thinking and questioning gradually and progressively.

**Before the Activity**

- What plants/small animals did you see just now?
- Do you like the scenery in front of you? Whom do you want to appreciate this beautiful view with?
- How can we bring this beautiful scenery home to share with family?
- Do you like these plants and small animals?
- Do you know how to protect them?
- Who needs these plants?

**After the Activity**

- Can you tell me what you have drawn?
  - What would happen to these plants and small animals if we didn't care for nature?
  - Can you guess how our lives would be affected if there were no plants and small animals?
- 

**Extended Activities**

Based on the rationale of this activity, teachers may develop other extended activities to fit into the themes of the school-based curriculum, for example:

- Teachers can encourage children to colour their drawings in "Nature Appreciation" for display at school.
- 

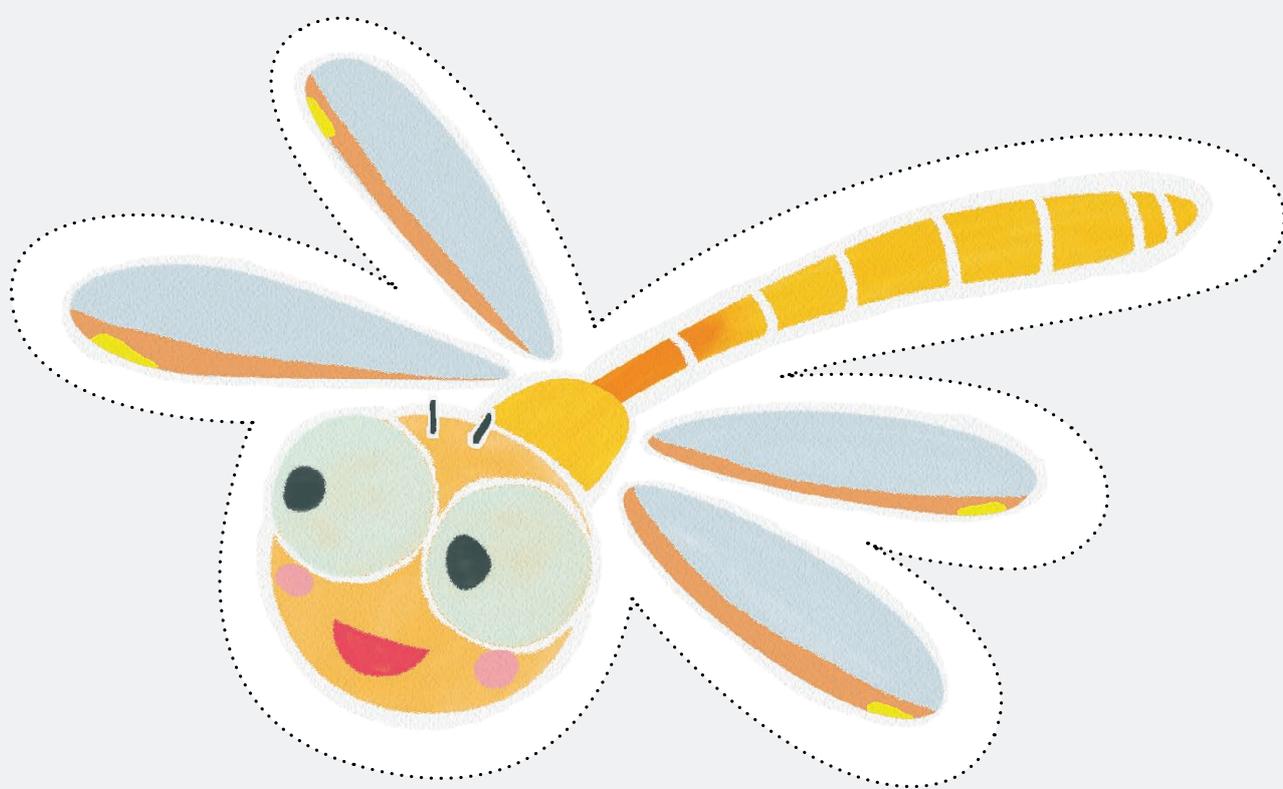


## VIII Conclusion

The proposed activities of the Learning Activity Resource Package “*Wetland Footprints*” are for teachers’ reference only. Teachers are welcome to make optimal use of the natural resources and environment of Hong Kong Wetland Park to create more diversified activities to enable children to understand the importance of care for the nature through free exploration and play, as well as to build good habits of environmental protection and conservation of resources.



## Appendix 1: Paper Puppet “Dragonfly Dow”

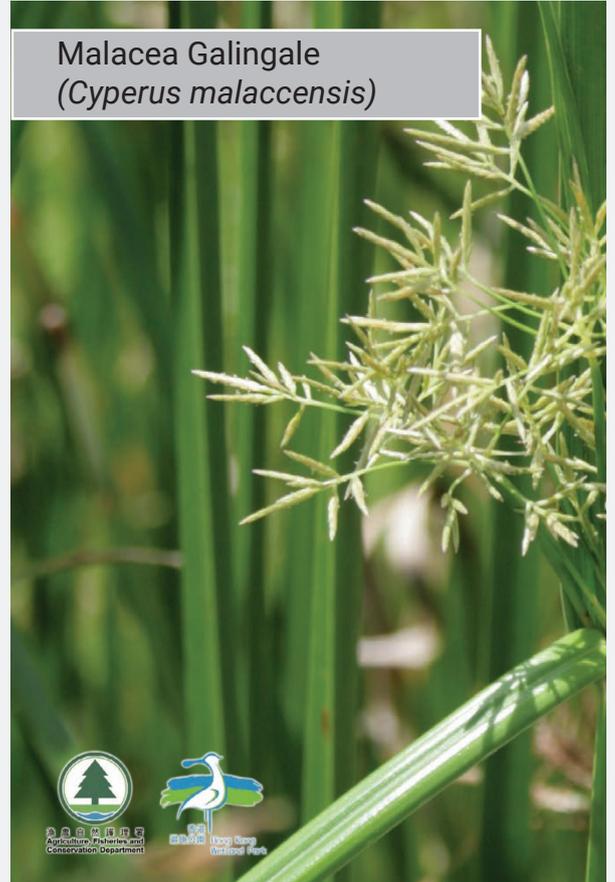


## Appendix 2: Pictures of Aquatic Plants

Frail Horsetail (*Equisetum debile*)



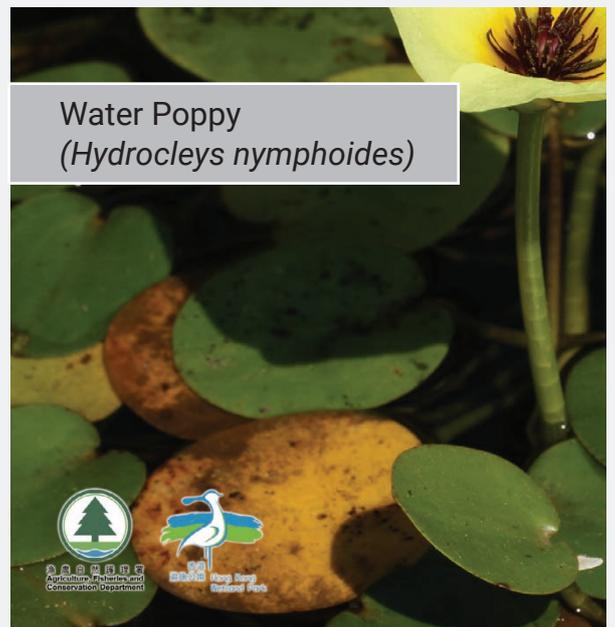
Malacea Galingale (*Cyperus malaccensis*)



*Myriophyllum aquaticum*

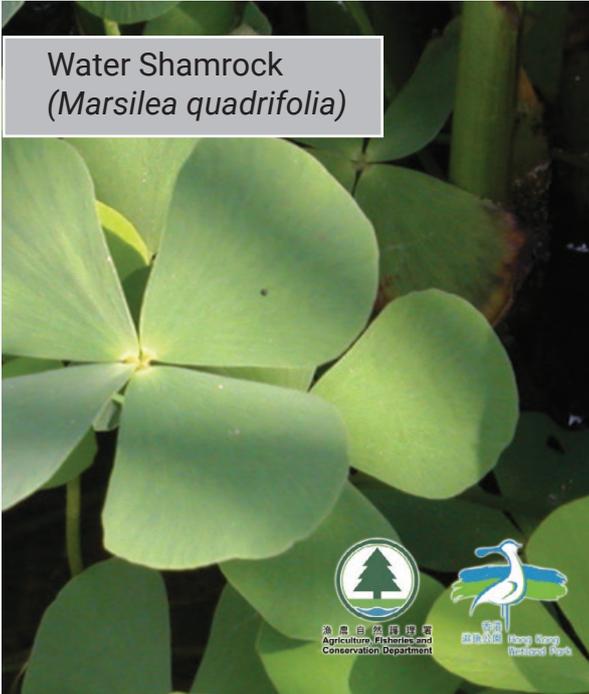


Water Poppy (*Hydrocleys nymphoides*)



## Appendix 2: Pictures of Aquatic Plants

Water Shamrock  
(*Marsilea quadrifolia*)



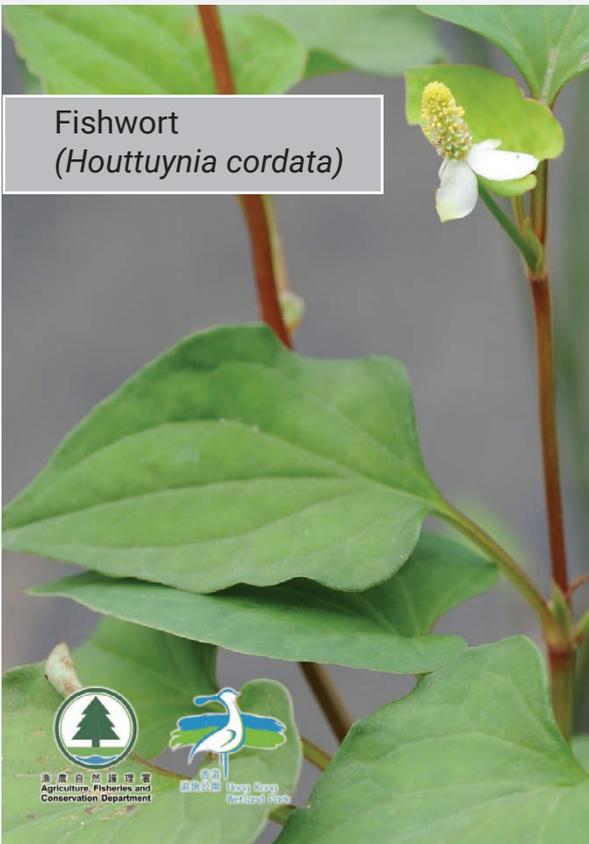
Small Yellow Bladderwort  
(*Utricularia bifida*)



Pitcher Plant  
(*Nepenthes mirabilis*)



Fishwort  
(*Houttuynia cordata*)



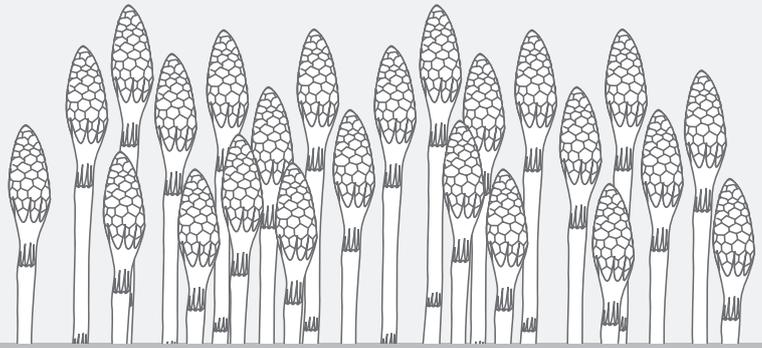
## Appendix 2: Pictures of Aquatic Plants

Indian Lotus  
(*Nelumbo nucifera*)



Water Lily  
(*Nymphaea* spp.)





## Appendix 3: Pictures of Signs



Keep quiet, do not shout or run



Do not litter. Put litter into bins or take it away with you



Do not have picnics in the park or leave food in outdoor areas



Do not pick or damage plants



Do not disturb or capture animals



Do not touch the wild animals, bird feathers or their droppings. Wash hands right after the activities

# Appendix 4: Pictures of Aquatic Animals

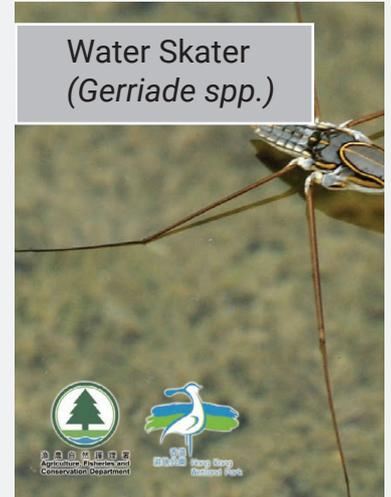
Golden Apple Snail  
(*Pomacea canaliculata*)



Damselfly



Water Skater  
(*Gerridae spp.*)



Dragonfly



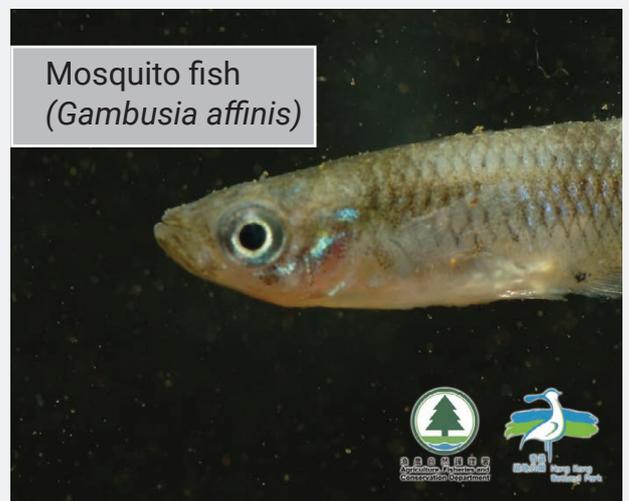
Tadpole



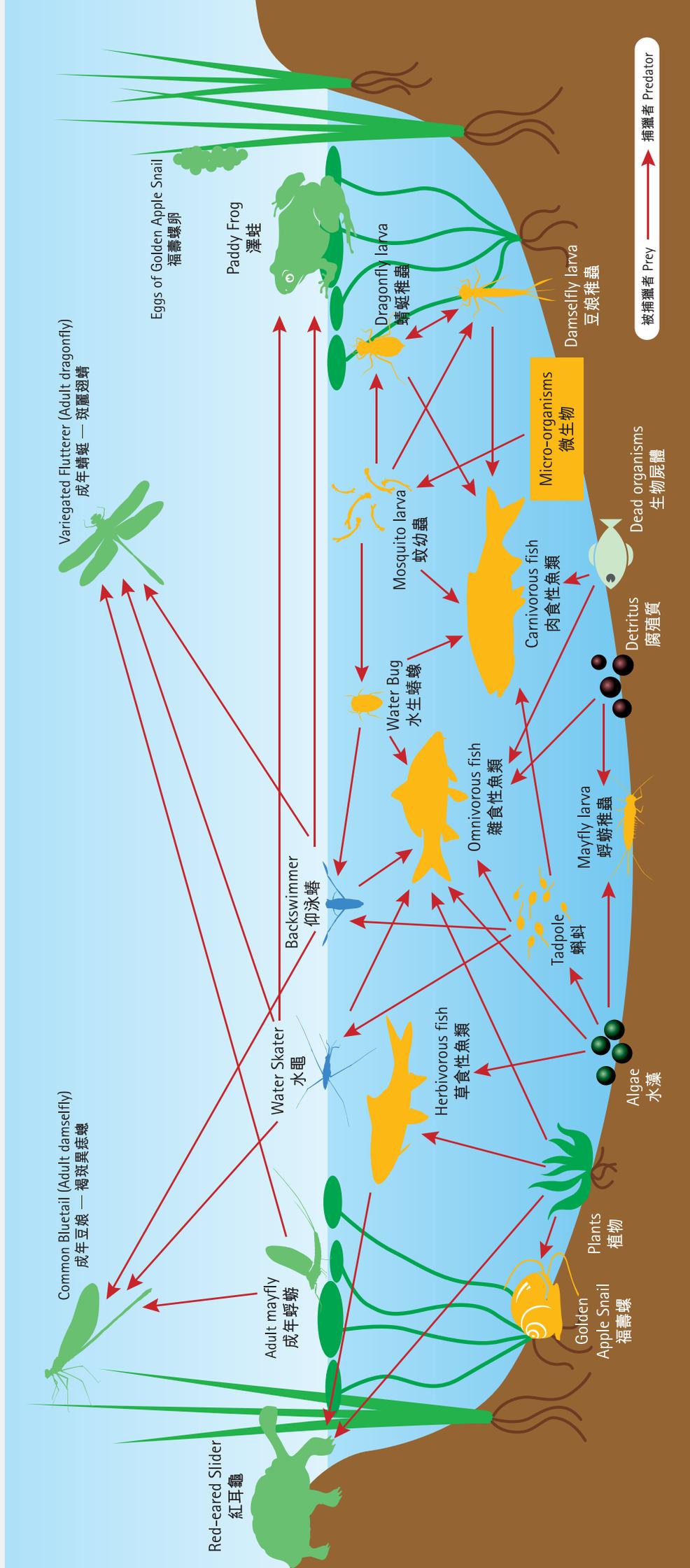
Chinese Barb  
(*Puntius semifasciolatus*)



Mosquito fish  
(*Gambusia affinis*)



# Appendix 5: Food Web in a Pond



Hong Kong Wetland Park - Life in a Pond. Retrieved from:

[https://www.wetlandpark.gov.hk/filemanager/files/public/Download/pamphlets/20130903\\_Pond\\_Life\\_Leaflet.pdf](https://www.wetlandpark.gov.hk/filemanager/files/public/Download/pamphlets/20130903_Pond_Life_Leaflet.pdf)



## Appendix 6: Picture of Mosquito fish



Some information and pictures are provided by Hong Kong Wetland Park under AFCD.









