

# Appreciating Our Heritage in Nature

## An Educator's Toolkit



# Appreciating Our Heritage in Nature



## Pre-Visit Activity



Refer to Story Cards 1-2

### Pre-Activity 1: Let's Role Play!

#### Learning Domains

Aesthetics and Creative Expression / Discovery of the World / Language and Literacy

#### Duration

30 - 45 minutes

#### Objectives

Children will learn about the 4 main ethnic groups (Malay, Chinese, Indian and Eurasian) in Singapore through role-play

#### In the Classroom



1. Introduce the four characters to the children. Discuss the characters' names (Osman, Shanti, Leong, and Susan), ethnic groups, languages, celebrations, food and traditional costumes. Create a mind map to record the discussion.
2. Bring traditional costumes belonging to each ethnic group to class and invite the children to dress up and role-play based on their discussion.
3. During the role-play, invite the children to participate in different cultural dances/ songs.

**Follow-up activity:** Invite grandparents to share their culture, traditions and/or stories about growing up in Singapore with the children.

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## Pre-Activity 2: My Heritage Garden

### Learning Domains

Aesthetics and Creative Expression / Discovery of the World / Language and Literacy / Social and Emotional Development

### Duration

45 - 60 minutes

### Objectives

Children will create an artwork that reflects their idea of a heritage garden and talk about their creation

### In the Classroom

1. Draw the children's attention to the basic etiquette of visiting a garden. Brainstorm on what you can or cannot do at a garden. Remind the children about the importance of showing respect towards the environment.
2. Have a discussion on the meaning of heritage. Document the children's thoughts and ideas.
3. Provide the children with a variety of art materials and tools. Invite them to draw/ paint/ sculpt to create a representation of their heritage garden.
4. Encourage the children to talk about their creations. Recognise them for being creative and confident when sharing.
5. \*Bring along some of the children's artwork during your visit to the Heritage Gardens and invite them to spot similarities between the artwork and the Heritage Gardens.

**Follow-up activity:** Teachers and children to learn more about the Heritage Gardens online. Visit the website: <http://www.gardensbythebay.com.sg/en/attractions/heritage-gardens/visitor-information.html>



# Appreciating Our Heritage in Nature



## Indian Garden



Refer to Story Cards 3-4

### Activity 3: Discovering Spices

#### Learning Domains

Aesthetics and Creative Expression / Language and Literacy / Numeracy

#### Duration

10 - 20 minutes

#### Objectives

Children will discover the different spices and talk about the spices that are used in Indian cuisines.

#### In the Classroom

1. Introduce the children to a traditional Briyani (with curry) recipe. Invite them to identify the spices in the recipe.
2. Show the children the different spices. Invite them to examine the spices and identify them. Encourage the children to classify the spices by their different physical attributes such as size, shape and colour, etc.
3. Encourage the children to smell the spices and talk about the aroma and why spices are used in Indian cooking.

#### During Learning Trail

Invite children to hunt for different spices that the children can find in the Indian Garden. (Location: Information Board)

Hint: Cardamom, black pepper, cumin, coriander, mustard seeds, fenugreek, tumeric, saffron, etc

(Resources: Indian Spices picture cards)

**Follow-up activity:** Have a cooking activity using Indian spices. Serve the dish on a banana leaf! (Refer to recipes)



# Appreciating Our Heritage in Nature



## Activity 4: Pretty Rangoli Patterns

### Learning Domains

Aesthetics and Creative Expression / Social and Emotional Development / Numeracy

### Duration

15 - 30 minutes

### Objectives

Children will examine and identify the different Rangoli patterns, colours and shapes. The children will create their own Rangoli patterns.

### In the Classroom

1. Invite the children to appreciate Rangoli patterns found at the Indian Garden by talking about the intricate design that consists of various shapes, patterns and colours. Share with the children that Rangoli is a floor pattern made by hand using a variety of materials such as rice flour, spices, seeds and dried flowers.
2. Discuss why Rangoli (s) are drawn during the Indian cultural celebrations. (Answer: They are often found at the entrance to homes as a welcome to visitors.)
3. Ask the children, what are the other things we see outside a house or on a porch that make people feel welcome? (Answer: Wreaths, welcome mats, seasonal decorations, etc)
4. Invite the children to work in pairs to create a representation of a Rangoli on a sheet of paper.

### During Learning Trail

**Follow-up activity:** Invite the children to transfer their Rangoli design onto fabric to create tee-shirts, bags and other useful items. Refer to the video for a detailed explanation of the process.

Weblink: <https://www.youtube.com/watch?v=egM50a3eDwM>



Rangoli

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## Malay Garden



Refer to Story Cards 5-6

### Activity 5: C-O-C-O-N-U-T

#### Learning Domains

Aesthetics and Creative Expression / Discovery of the World / Language and Literacy / Motor Skills Development

#### Duration

15 - 30 minutes

#### Objectives

Children will identify the different parts and uses of a coconut palm.

#### During Learning Trail

1. Invite the children to look for coconut palms in the Malay Garden. Share with the children the uses of coconut palms. (Every part of the palm can be used in different ways).
2. Prepare clipboard and drawing paper.. Children to draw the coconut palm they see and label the different parts of the plant.
3. Share with the children that many Malay dishes contain coconut as an ingredient. Challenge the children to name of the dishes.



Hint: Nasi lemak, ondeh-ondeh, kuih lopus, sayur lodeh (vegetable curry), serunding (usually served with lontong)



# Appreciating Our Heritage in Nature



## In the Classroom

4. Introduce the traditional game, tarik upih kelapa (tug-a-war), a popular kampung game. Use alternatives such as a rice sack for this activity. Each team consists of a pair of children. One child sits on the upih and the other pulls it. Invite the children to challenge each other by pulling their partners to the finish line as fast as they can. The team that crosses the finishing line first wins.



Image extracted from <http://miraish.blogspot.com/2010/10/tarik-upih.html>

5. Play other traditional games with the children such as hop scotch, 5 stones, chapteh, congkak, pick up sticks, kuti-kuti and gasing.



6. Set up traditional games stalls in the school for the children. Encourage them to help with the set up and invite parents to play these traditional games with their children.



Did you know that you can find coconut palms in the Indian Garden too?

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## Chinese Garden



Refer to Story Cards 7-8

### Activity 6: The Four Gentlemen

#### Learning Domains

Aesthetics and Creative Expression / Language and Literacy / Motor Skills Development

#### Duration

45 - 60 minutes

#### Objectives

Children will share their thoughts and feelings about Chinese ink paintings and use Chinese paintbrushes to paint.

#### During Learning Trail

1. Discuss the four seasons and how they relate to The Four Gentlemen - bamboo, orchid, plum and chrysanthemum, featured in Chinese paintings.



Bamboo



Orchid



Chrysanthemum



Plum

#### In the Classroom

2. Introduce the children to Chinese ink paintings. Show the children pictures of Chinese ink paintings and invite them to talk about what they think or feel about these paintings.

3. Invite the children to paint one of the 4 plants using Chinese paintbrushes.

**Follow-up activity:** Invite the children to recite Chinese poems related to the four plants. (Poems in appendix)

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## Activity 7: Herbs and Medicine

### Learning Domains

Discovery of the World / Language and Literacy

### Duration

15 - 30 minutes

### Objectives

Children will examine and observe plants / flowers / herbs used in Chinese medicine and cuisines.

### In the Classroom

1. Talk about how plants can be used in Chinese medicine and cuisine. For example, bamboo and chrysanthemum are commonly used in traditional Chinese medicine and lotus roots and bulbs are used in Chinese cuisine.

2. Show the children some of the common plants used in traditional Chinese medicine and cuisine. For example, chrysanthemum, wolfberries, ionicera flower (honeysuckle flower), lotus seeds, monk fruit, and barley, etc.



Wolfberries



Chrysanthemum



Monk fruit



Barley

3. Invite the children to examine these plants. Ask the children to share their experiences with the plants (plant parts) they have eaten before.

**Follow-up activity:** Bring different kinds of vegetables into the classroom. Make a healthy Chinese-style soup for all to enjoy.



# Appreciating Our Heritage in Nature



## Colonial Garden

### Activity 8: Cash Crops

#### Learning Domains

Aesthetics and Creative Expression / Discovery of the World / Language and Literacy

#### Duration

30 - 45 minutes

#### Objectives

Children learn about cash crops and why they were important to early Singapore.

#### During Learning Trail

1. Explain the meaning of cash crops to the children. Introduce the cash crops that can be found in Colonial Garden (nutmeg, clove, pepper & cinnamon).

#### In the classroom

1. Read stories about cash crops to the children and have them design a postcard / stamp inspired by cash crops.

2. Ask the children to interview their grandparents/ parents to find out what dishes and products are made using cash crops.

(Hint: Cocoa, rubber, nutmeg, clove, coffee, pepper, gambier, cassia, etc)



Coffee Plant



Coffee Beans

**Follow-up activity:** Create a book about a cash crop and start with the process of growing the cash crop to finally using it to create a product. For example, Journey of the Cocoa Seed. Do include fun facts, drawings, etc.

Did you know that nutmeg was the first cash crop that was grown in Singapore?



In 1831, Charles Robert Prinsep from the East India Company brought the first nutmeg plant to Singapore.

# Appreciating Our Heritage in Nature



## Post Activities

### Activity 9: Common Plants

#### Learning Domains

Aesthetics and Creative Expression / Discovery of the World / Language and Literacy

#### Duration

30 minutes

#### Objectives

Children will make comparisons between the plants that are commonly found in the Heritage Gardens.  
Children will understand how these plants are used in various cultures.

#### During Learning Trail

1. Invite the children to find the common plants in the Malay, Chinese, Indian and Colonial gardens which make up the Heritage Gardens at Gardens by the Bay.

#### In the classroom

1. Refer to the Common Plants page.
2. Discuss how the plants are used in different cultures.
3. The teacher can use the pictures during the class discussion.

#### Follow-up activities

1. Collect fallen leaves and flowers. Turn pressed leaves and flowers into bookmarks and/or “Thank You” cards.
2. Match pictures of leaves to their silhouettes.
3. Find the botanical names of the common trees.
4. Match the parts of the plants to the plant names.



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## Indian Spices 印度香料



Star Anise  
八角



Tumeric  
姜黄



Cumin  
小茴香



Clove  
丁香



Nutmeg  
肉豆蔻



Cardamom  
豆蔻果实



Fenugreek  
胡芦巴



Black Pepper  
黑胡椒



Saffron  
藏红花

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## Finding Heritage in Nature

These are some of the heritage plants, trees that you can find in Gardens by the Bay - Heritage Gardens



### **Syzygium polyanthum (Scientific Name)**

Common Name: Indonesian Bay Leaf

Location: At Malay Garden

Years in Singapore: Perennial (Native)

Uses: The young leaves are a commonly used spice in Southeast Asian cuisine that is particularly popular in Indonesia.



### **Dolichandrone spathacea (Scientific Name)**

Common Name: Mangrove Trumpet Tree

Location: Mangrove Trumpet Tree

Years in Singapore: Perennial (Native)

Habitat: It generally grows in mangrove forests, including the landward edge of such forests.

It occurs locally in Changi, Pulau Sudong, Pulau Ubin, and Woodlands.



# Appreciating Our Heritage in Nature



## Common Plants



### Coconut Palm

Location: Malay & Indian Garden

Common Uses:

- Malays use coconut milk to make kuihs and nasi lemak.
- Malays, Chinese, Indians and Eurasians use coconut milk to make curries.



### Cinnamon

Location: Indian & Colonial Garden

Common Uses:

- Malays use cinnamon to cook rendang.
- Indians use cinnamon to cook biryani rice and its accompanying dishes.
- Eurasians use cinnamon in pastries and tea.



# Appreciating Our Heritage in Nature



## Chinese Poems

### 《题画梅》

清·李方膺

梅花此日未生芽，旋转乾坤属画家。  
笔底春风挥不尽，东涂西抹总开花。

### 《杂诗》

唐·王维

君自故乡来，应知故乡事。来日倚窗前，寒梅著花未？

### 《梅花》

王安石

墙角数枝梅，凌寒独自开。  
遥知不是雪，为有暗香来。

### 《墨梅》

王冕

我家洗砚池头树，朵朵花开淡墨痕。  
不要人夸好颜色，只留清气满乾坤。



# Appreciating Our Heritage in Nature



## Chinese Poems

### 《咏蕙》

朱熹

今花得古名，旖旎香更好。  
适意欲忘言，尘编讵能老。

### 《咏兰》

余同麓

手培兰蕊两三栽，日暖风和次第天。  
坐久不知香在室，推窗时有蝶飞来。



### 《竹》

宋·宋祁

修修梢出类，辞卑不肯丛。  
有节天容直，无心道与空。

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## Chinese Poems

### 《画菊》

郑思肖

花开不并百花丛，独立疏篱趣未穷。  
宁可枝头抱香死，何曾吹落北风中！

### 《二色菊》

程先贞

黄衣彼美人，余有紫衣副。  
不比炫春葩，姚魏敌门户。



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Never  
too young  
to serve the  
community

Start  
Small  
Dream  
Big

PRESIDENT'S  
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