

14. Fruit Tree Survey

Aim	Pupils identify and observe local fruit trees found in the school garden. They then examine and describe selected local fruits.
Recommended for	Primary 3-6
Subject Links	Science: classification of plants, life cycle of plants, reproduction in plants (Primary 3-6)
Horticultural Skills	Fruit trees
Process Skills	Observing, measuring and using apparatus, generating
Equipment/Materials	*1-2 local fruits, knife, measuring tape. Optional: 'A Guide to Fruits and Seeds'(Singapore Science Centre Guide Book), laminator, laminating film
Duration	1-2 hour/s
Preparation	*If possible, pick these fruits from the fruits trees in the school garden. If the trees in school are not fruiting, buy selected local fruits (same species as those in school) from the supermarket or market. Photocopy the handouts and obtain the materials.
Safety	Brief pupils on 'Garden Nasties' (see page 4). Look out for pupils who may be allergic to pollen in the air or plant sap. Warn pupils about plants which have thorns.

Procedure

- Introduce the activity by discussing fruits:
 - A 'fruit', in botanical terms, is a fertilised and ripened ovary of a flowering plant, hence not only mangos and apples are fruits, but also tomatoes, brinjals and chillies.
 - Fruits are healthy food. They are rich in vitamins (especially vitamins C, A, E and the entire B series), as well as minerals like potassium and fibre.
 - Ask them if they have heard about fruits like the duku, chempadak etc.. Explain that this activity is on local tropical fruits (those that can grow in a hot and wet climate like that in Singapore).
- Distribute the handout and explain the activity - pupils go the school garden and identify the local fruit trees in school. They then choose 2 trees and study them in detail (take measurements etc.).
- Pupils then return to the classroom to examine a local fruit. Present them with some local fruits (preferably the same species as those from your garden) and ask them to describe and draw the external features. Then cut the fruit with a knife for them and let them draw the internal parts. Let pupils taste the fruit and describe the taste to each other.
- Check on all their drawings on their handout. Debrief the activity.
- Encourage pupils to post pictures of fruit trees in the school garden and/or their reflections on your school blog or the NParks Gardening blog 'Young Gardeners' (http://www.nparks.gov.sg/blogs/young_gardeners/).



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6. Extensions:

- Pupils can do web research on selected fruit trees found in the school garden. They write and design a plant label for each tree. Select a few plant labels and laminate them. Use them as signage in the school garden.
- Encourage the pupils to make suggestions for new fruit trees to be planted in the school garden. Get them involved in planting and caring for these.

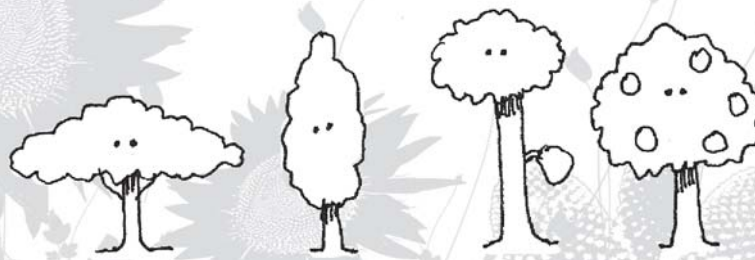
Debrief/Background Knowledge

- § Run through the list of fruit trees planted in your school garden.
- § Select a few trees and get pupils to share their findings about the trees.
- § Explain that characteristics of the leaves, trunk, flowers and fruits help us identify the trees and that each tree has its own characteristics.
- § Ask the pupils what kinds of fruits they usually eat. Discuss the popularity of local tropical fruits vs temperate fruits (those able to grow in a cooler climate) like apples, pears and oranges.
- § Ask the pupils what they have learnt through this activity. Alternatively, you could ask them to fill in the reflection sheet in Annex 3 and discuss their reflections.

Additional Information

Here are some common local fruits in the region:

<ul style="list-style-type: none"> • Mango (<i>Mangifera indica</i>) • Starfruit (<i>Averrhoa carambola</i>) • Kedondong (<i>Spondias cytherea</i>) • Jambu air (<i>Syzygium aqueum</i>) • Rambutan (<i>Nephelium lappaceum</i>) • Belimbing (<i>Averrhoa bilimbi</i>) • Jackfruit (<i>Artocarpus heterophyllus</i>) • Chiku (<i>Manilkara zapota</i>) • Banana (<i>Musa</i> spp.) • Papaya (<i>Carica papaya</i>) • Guava (<i>Psidium guajava</i>) 	<h4>Rarer Fruit trees</h4> <ul style="list-style-type: none"> • Cachew nut (<i>Anacardium occidentale</i>) • Mangosteen (<i>Garcinia mangostana</i>) • Buah Cherry /Indian Cherry (<i>Muntingia calabura</i>) • Buah salak (snakefruit) <i>Salacca zalacca</i> • Chempedak (<i>Artocarpus champedon</i> or <i>Artocarpus integer</i>) • Sweet tamarind (<i>Tamarindus indica</i>) • Duku (<i>Lansium domesticum</i>) • Pulasan (<i>Nephelium ramboutan-ake</i>) • Durian (<i>Durio zibethinus</i>) • Breadfruit (<i>Artocarpus altilis</i>) • Soursop (<i>Annona muricata</i>) • Custard apple (<i>Annona reticulata</i>) • Nam nam (<i>Cynometra cauliflora</i>)
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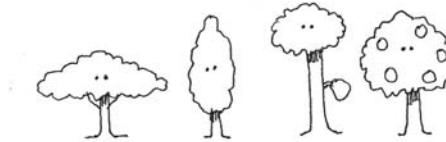
Activity 14



Name :

Members of your team :

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	Fruit Tree 1	Fruit Tree 2
Name of tree Common and/or scientific name		
Leaf of the tree • What shape is it? Draw the shape • Is it a simple or compound leaf? • What is the leaf texture like? • What is the length of each leaf?		
Trunk of the tree • What is the colour of the trunk? • What is the texture of the trunk?		
Where flowers and fruits are formed • What are the flowers of the trees like? Draw one. • Do flowers and/or fruits form at the end of branches? or • Do flowers and/or fruits form on branches and the trunk of the tree?		

A local fruit

Observe the outside (external) and inside features of the fruit shown to you. Describe it in your own words. Draw it if you like.

Name of Fruit:

<h3>Internal</h3>	<h3>External</h3>
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