Passiflora Ltd, Andromeda Botanic Gardens, Bathsheba, St Joseph 246-433-9384
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Mission Andromeda: Voyager

Family Activity Sheet

Note: For each activity item below, (1-13), there is a corresponding ***numbered picture*** in this guide to assist you. These will. In some instances, be different from the numbers on the actual plant.

Feel free to change or omit activity items and discussion questions to fit the needs of your family, interests, and time.

1. Look over sheet **#1 Animals in Andromeda Gardens** before entering the garden. These are animals to watch for during your visit to the garden.

2. Enter the garden, walk over the bridge and turn right. Look at the, ***Breadfruit Tree*** **(label number 2)**. Many people in Barbados eat its large round fruit.

Q. In what different ways might people prepare breadfruit?

Q. Name 5 other fruit that we eat.

Go up the hill to the **Succulent Garden**.

Discuss the characteristics of succulent plants.

Q. How do the sharp prickles help the plant? (stops animals from eating it)

Did you know, the spikes on many succulent plants are modified leaves, evolved to limit the loss of water through transpiration.

Q. Why are some of the leaves and stems thick and fleshy? (To store water)

Q. Why are the stems very hard? (To reduce water loss)

Q. Have a look at the labels. Which plant families are in the Succulent Garden? Plant families generally end with the letters '**aceae**'. The family name can be found on the top left corner of the plant labels. Enjoy trying to say the difficult names!

Look for a large shrub with the plant label **3, *Screw Pine*** near it. People use its leaves to weave baskets.

Q: In what different ways do we use baskets?

3. Continue on the path and look for plant label number **5,** another species of ***Screw Pine***. Look back to number **3.** Ask the children describe the differences but please do not touch!

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4. Follow the path. Look for tree labelled number 9, *Bearded fig*. It has long roots that hang from its branches called aerial roots. They start growing new trunks when they touch the ground.
Q. What do roots do for plants? (get water, store food, start new plants growing)
Q. What do leaves do for plants*?* (make food for the plant, take CO2 out of the air and put O2 into the air)

Near the tree labelled number 13, step on each stepping stone, one at a time. Count out loud together the number of stepping stones on the path.
Q. How many stepping stones are there in all?

Walk to the *Orchard* number14.
Do you see any fruit on trees there today? If so, describe them.
Do you see any animals in the orchard?

5. Continue to the *Palm Garden* number 15. Look for the *Queen of Sheba Palm.*
Describe the shape of the leaves of this palm. (rounded, fan shaped)

6. Look for the *Red Leaf Palm, Flame Thrower Palm.*
Describe the shape of the leaves of this palm. (pinnate)
Q. How are the two palm (Queen of Sheba and Red Leaf) the same? How are they different? (talk about size of the trees, trunks, patterns, leaves, etc)

7 and 8. Go into the Queen Ingrid of Denmark Gazebo. Look at the compass rose directions on the floor. Stand and point in the direction of your home.
Use images to help you. 7 Map of Barbados and 8 Location Map of Barbados in the World.

9. Continue along the path. Find plant label 25, the ornamental banana plants.
Q. Where do banana plants grow? (*There are fields of edible bananas just around the corner from the Gardens.)
Q. Tell different ways in which we eat and use bananas in our food.

Walk down the steps between the ponds. Identify all the animals and insects you see at the ponds.

Continue onto the Hummingbird Zone numbered 28 by the house.
Q. What insects or birds do you see drinking nectar from flowers here today?

10. Find a flower to observe. Identify the main parts of the flower. Look at the Parts of the Flower image. Talk about the roots underground that we don't see in the guide. Talk about: petals, stem, leaves, roots. Older children may enjoy identifying and talking about additional parts of the flower: sepals, stamen, and ovary, for example.

For older children:
Q. How do butterflies, bees and other insects pollinate flowers? What is pollination?

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11. Continue on the path. Look for ***Heliconia stricta 'Iris'*** number *35*, named after Iris Bannochie, the lady who created the Garden. "Iris" means "rainbow" in Greek.

Review list

1- Animals in Andromeda Gardens. Discuss which animals your family observed in the garden during your visit.

Q. Which animals did you see the most?

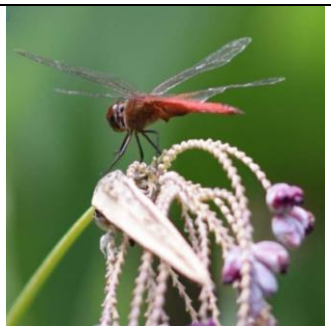
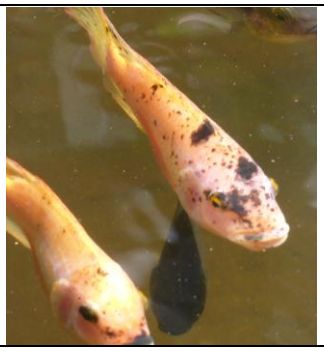
Q. Which animals did you see the least?

12. Finish your visit walking along the Heliconia Walk. Look for another species of Heliconia, known as the beefsteak heliconia, numbered 40. This plant may have large red and brown bracts (modified leaves) with tiny pink flowers along the sides. Hummingbirds love these flowers.

Q. What facts can you tell about hummingbirds?

1. Animals in Andromeda Botanic Gardens:

Hummingbird image Bradley Benskin, Dragonfly and Mongoose by Mark Brackenbury

Hummingbirds	Bananaquits	Anoles	Snails
Monkeys	Tortoises	Buck-Eye Butterflies	Monarch Butterflies
			
Caterpillars	Bees	Dragonflies	Millipedes
			
Cats	Bats	Fish	Mongooses

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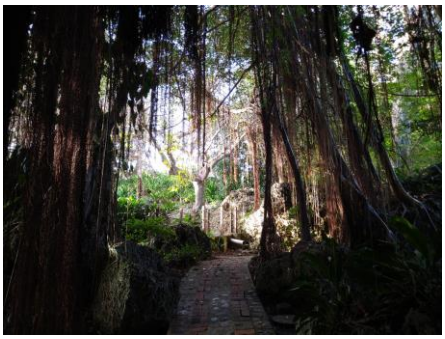
2. Breadfruit Tree

3. Screw Pine

4. Bearded Fig



5. Queen of Sheba Palm

6. Flamethrower Palm

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7. Map of Barbados

8 Location Map of Barbados in the World, (Red oversized image – location is the centre of the circle)

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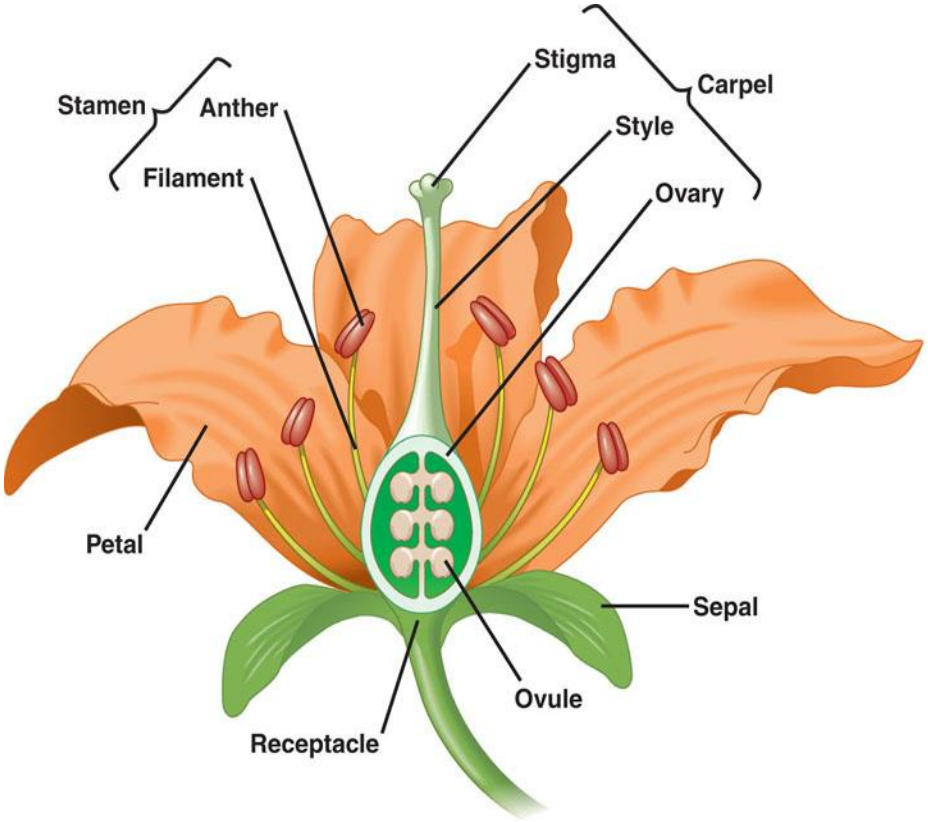
9. Banana Plant

10. Parts of the Flower



Parts of the Flower and Functions:
Sepal – protects the flower bud before it opens
Petal - attracts pollinators to the flower
Stamen – Males Parts of the flower. the filament and the anther. The **anther** produces the pollen and is supported by the **filament.**
Stigma - female part that collects the pollen
Style – connects the stigma to the ovary, route the pollen travels to get to the **ovary**

Pollination: An insect brushes against the flower **stamen** when it comes to a flower to drink nectar. It picks up **pollen**. The insect drops that **pollen** on the **stigma** of another flower when it lands on it to drink nectar. This fertilizes the flower and starts a fruit with seeds growing.

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11. Heliconia stricta ‘Iris’

12. Beefsteak (Heliconia)

Photo by Bradley Benskin

I hope you enjoyed your activities today.
Please return and enjoy some more!

Written by Rebecca Houtsma. Edited and revised by Sharon Cooke.
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