

SG60 COMIC TRAIL GUIDE

SG60 COMIC TRAIL GUIDE

Use the map to find your way.
You can follow this guide or go in any order.

At each station, read the comic and the relevant notes in this guide.

Remember to pace yourself and stay hydrated!



THE SUPERTREES'
POWER

with Biogirl MJ

SUPERTREE GROVE



STATION 1 THE SUPERTREES' POWER

Welcome to Supertree Grove, home of our iconic Supertrees! Our Supertrees are important in keeping the Conservatories cool.



What is the Supertree's chimney used for?







Answer:

The Supertree's chimney is used to release non-toxic fumes from the biomass incinerator which generates electricity that helps to cool the Conservatories.



STATION 1 THE SUPERTREES' POWER



Pose with the Supertrees against the Marina Bay skyline.
Remember to #RacetoSustainability and
#gardensbythebay!



THE GREAT BIG FILTER

with Biogirl MJ

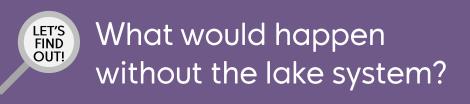
MALAY GARDEN (HERITAGE GARDENS)





STATION 2 THE GREAT BIG FILTER

Head towards the bridge on the right and look down! That's Kingfisher Lake, a key part of the lake system here at Gardens by the Bay.









Answer:

Without the Gardens' lake system, the unfiltered water that enters Marina Reservoir would be full of sediment and other debris!



STATION 2 THE GREAT BIG FILTER



The abundance of dragonflies indicates a healthy lake.

Spot 2 different species of dragonflies along the lake!



LEARNING FROM THE PAST

with Biogirl MJ

COLONIAL GARDEN (HERITAGE GARDENS)





STATION 3 LEARNING FROM THE PAST

Explore the 6 blue display boxes along the verandah to learn about the cash crops that used to be grown in Singapore.



Which crops were not grown in colonial Singapore – cocoa, coffee or pepper?





STATION 3 LEARNING FROM THE PAST

Answer:

Cocoa was not grown in colonial Singapore!



STATION 3 LEARNING FROM THE PAST



Did you know that vanilla comes from orchids? Spot the *Vanilla planifolia* in the Colonial Garden!



A LONG-AWAITED HOMECOMING

with Biogirl MJ

WEB OF LIFE (WORLD OF PLANTS)



STATION 4 A LONG-AWAITED HOMECOMING

Singapore is home to many wildlife species. Human activity has affected the creatures that share our home.



Name an animal featured in Web of Life that is native to Singapore.







Answer:

The Sunda pangolin, Oriental Pied Hornbill, fruit bat, rhinoceros beetle, tree shrew and fig wasp are native to Singapore!





Match the topiaries to the animals: pangolin, hornbill, fruit bat, rhinoceros beetle, orangutan, tree shrew, fig wasp and binturong

THE THIRD KINGDOM

with Biogirl MJ

UNDERSTOREY (WORLD OF PLANTS)





STATION 5 THE THIRD KINGDOM

Look at those giant red mushrooms!
They belong to a kingdom of life
called fungi, which are decomposers
that break down dead organic matter
and return the nutrients to the soil.



Why is it important for nutrients to be returned to the soil?





STATION 5 THE THIRD KINGDOM

Answer:

Plants are primary producers that convert sunlight to energy. This energy forms the base of nearly all food chains. In a healthy forest, decomposers such as fungi and bacteria play a crucial role in ensuring that there is always enough nutrients in the soil to help plants to grow big and strong.



STATION 5 THE THIRD KINGDOM



As you walk around the Gardens, try and spot some fungi!



UNDER THE WATER'S SURFACE

with Biogirl MJ

WATER LILY POND



STATION 6 UNDER THE WATER'S SURFACE

Aquatic plants are more than just decorative. They help to keep the conditions in an ecosystem in check.



What could happen if algae in a pond grows out of control?





STATION 6 UNDER THE WATER'S SURFACE

Answer:

Algae can do a lot of damage to an underwater ecosystem! When algae grow on the water's surface, it prevents sunlight from reaching plants under water.

Algae also compete with the aquatic animals for oxygen.

Too much algae can cause the animals to suffocate

from lack of oxygen!





Water lilies also provide a home to some animals.

Spot a frog sitting on a lily pad, or fish hiding under the leaves.

IN THE SHADE

with Biogirl MJ

GOLDEN GARDEN





STATION 7 IN THE SHADE

Singapore is an island in the tropics, enjoying warm temperatures all year round. We need plants to help us reduce the urban heat island effect.



How do plants help to keep urban Singapore cool?







Answer:

Plants, especially large trees, provide shade from the sun. They also release water vapour through a process called transpiration. By doing so, the air around the plant is cooled. The cooling effect is multiplied when many plants do so at the same time, lowering the surrounding temperature!





Take a walk under the canopy of raintrees that link the Golden Garden to the Ticketing Counter. Experience how these trees reduce the urban heat island effect!



IT'S GETTING HOT IN HERE

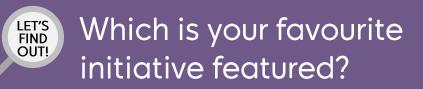
with Biogirl MJ

THE CANOPY



STATION 8 IT'S GETTING HOT IN HERE

Global warming and the effects of climate change affect all of us. Public agencies are doing their part to ensure that Singapore grows sustainably.







STATION 8 IT'S GETTING HOT IN HERE

The SG Green Plan is a whole-of-nation movement to advance Singapore's sustainable development to achieve net zero emissions by 2050.





Make your own pledge to help make Singapore more sustainable! What are some actions you can take to live more sustainably?



THE COOLEST GREENHOUSE

with Biogirl MJ

THE BAOBABS, FLOWER DOME



STATION 9 THE COOLEST GREENHOUSE

Look up, up, up! What 'magic' cooling effect do those glass panels have? How is Flower Dome cooled sustainably?



Look for the glass casing in the ground. What do you see?





STATION 9 THE COOLEST GREENHOUSE

Answer:

Chilled water pipes are used for cooling the ground and the air just above the pipes. As hot air rises and cold air sinks, only the space occupied by plants and humans are cooled. Hot air rises to the upper, unoccupied zones of the Flower Dome.



STATION 9 THE COOLEST GREENHOUSE



Spot the 'windows' or vents at the top of the glass dome.

These windows allow hot air to escape!





A WHIFF OF HERITAGE

with Biogirl MJ

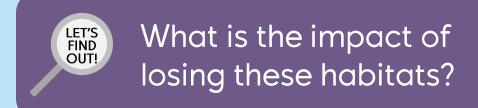
OLIVE GROVE, FLOWER DOME





STATION 10 A WHIFF OF HERITAGE

Locals have depended on these ancient trees for many purposes throughout time. However, many plant and animal habitats have been cleared for redevelopment.







STATION 10 A WHIFF OF HERITAGE

Answer:

The loss of habitats can cause a lot of harm in the long run.

Not only do the animals and plants lose their homes,
we also lose valuable scientific knowledge. Some plants,
like the olive tree, can take many years to grow. Even if
more seeds were planted, it could take years before the
trees reach maturity.

THANK YOU FOR COMPLETING THE SG60 COMIC TRAIL!