



MALAYSIA

BIODIVERSITY AND NATURE



Eco-Schools Programme Starter Kit

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WHAT IS THE ECO-SCHOOLS STARTER KIT?

The Starter Kit is a handbook for both students and teachers. It provides them with a series of ideas to organise and carry out Action Plans and activities related to the ten Eco-Schools themes. By using the starter kit as a guide, students will be able to combine creativity and problem-solving elements to engage their school community in protecting the environment.

Remember, this starter kit is just a guideline! We encourage students and teachers to come up with their own initiatives and ideas based on the Seven Steps Methodology and Eco-Themes.

The Seven Steps Methodology will help your school implement environmental and sustainability projects smoothly.



BIODIVERSITY AND NATURE

Examines the flora and fauna present in the school environment and suggests ways to increase the levels of biodiversity around the school and raises the pupils' awareness of biodiversity and nature.

DEFINITIONS

Problem(s) :

The environmental issue(s) your school is facing.
(e.g: Water wastage in school compund)

Goal :

The problem(s) which you want to solve at your school.
(e.g: To increase awareness)

Target Audience :

A group of individuals/people specifically identified to carry out certain activities.
(e.g: Eco-committee/canteen operator/gardener)

Measure of Success :

Methods to determine the success of the activities.
(e.g: Measurement using difference in water bill/ electricity bill)

Collaborators :

Individuals/organisations/city councils that you may want to work with to achieve your goal. (e.g: Engage with an environmental non-governmental organizations (NGOs) to present water conservation to students & teachers)

Resource Streams :

Source of funding to run your activities.
(e.g: Fundraising/In-kind donation)

Cost :

The estimated amount of money needed to carry out the entire activity.

SUGGESTED ACTIVITIES FOR BIODIVERSITY AND NATURE

To achieve Sustainable Development Goals (SDGs) 14 and 15.



For more info, please visit sustainabledevelopment.un.org/
For additional resources on the SDGs,
check out worldslargestlesson.globalgoals.org/

DIFFICULTY: ★☆☆

COMPETITION



Writing competition



Photography competition



Drawing competition

TIPS

- These competitions should be related to biodiversity and nature.
- The rewards for the winner of the competition can be something related to biodiversity and nature. For example, camping, a small plant, books or gifts made from plants, etc.
- You can organise a gallery or exhibition to showcase students' work too!

All the contents above are only suggestions

02

HOW CAN WE DO IT?

Problem(s)?

Students are less exposed to the natural environment, and there is lack of awareness and appreciation of its importance on the school ground.

Goal?

To increase student's knowledge and awareness on biodiversity and nature.

Target Audience?

Students and teachers.

Measure of Success?

The involvement of students in the competition and their understanding of the theme.

Collaborators?

The involvement of students in the competition.

Resource Streams?

Parent-Teacher Association (PTA).

Cost?

<RM100

All the contents above are only suggestions

03

DIFFICULTY:



PLANT LOCAL TREES

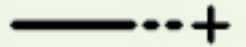


Plant small trees in the classroom or outside the classroom for birds to take shelter and rest.

Planting trees will also provide more shade for the school compound, increase biodiversity of insects and birds, as well as small animals.

DID YOU KNOW?

An average size tree produces enough oxygen in one year to keep a family of four breathing.



HOW CAN WE DO IT?

Problem(s)?

Lack of trees and plants in school compound.

Goal?

To help students learn about local plant species by involving them in tree planting activities in school/community.

Target Audience?

Local community, parents and teachers.

Measure of Success?

Trees are growing healthy in the school and students know how to take care of the trees.

Collaborators?

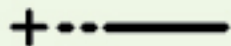
Gardeners, local councils, plant nursery, and NGOs.

Resource Streams?

NGOs, Parent-Teacher Association (PTA), school fund.

Cost?

<RM100



All the contents above are only suggestions

04



All the contents above are only suggestions

05

DIFFICULTY: ★☆☆

ANIMAL PICTURES



Create animal signs with interesting facts about them and put around the school and in the classrooms.

TIPS

To make your animal signs more appealing, try using eye-catching colours, reader-friendly fonts, and larger size to grab attention.

HOW CAN WE DO IT?

Problem(s)?

Lack of information and elements on nature and biodiversity in school buildings.

Goal?

Students get to learn more about local wildlife species.

Target Audience?

Students, parents and teachers.

Measure of Success?

Increased number of students who read about animal facts and more of them aware about local wildlife species.

Collaborators?

Art club & Science Club.

Resource Streams?

School fund, Parent-Teacher Association (PTA).

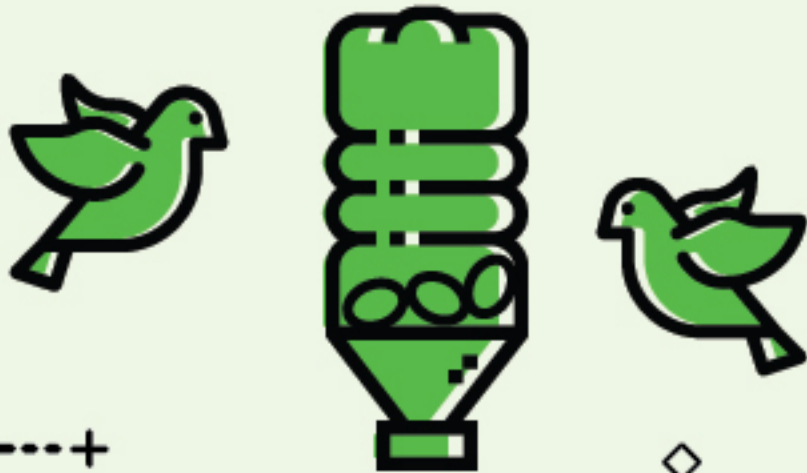
Cost?

<RM100

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DIFFICULTY: ★☆☆ +

D. I. Y. BIRD FEEDER



Create a bird feeder to attract birds in your school.

DID YOU KNOW?

Bird feeders with dry seeds should be cleaned monthly. Cleaning feeders regularly helps prevent bacteria that can be harmful to birds. If there is any moisture from rain, feeders should be cleaned more often.

HOW CAN WE DO IT?

Problem(s)?

There are less birds found or observed in the school compound and surrounding neighbourhood.

Goal?

To attract more birds to the feeder and students get to observe them.

Target Audience?

Students.

Measure of Success?

The number of birds which visited the bird feeder.

Collaborators?

Science Club, Scouts and Environmental oriented club.

Resource Streams?

Class fund, Parent-Teacher Association (PTA).

Cost?

<RM100

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DIFFICULTY: ★★☆☆

INFO STATION



Create a knowledge corner which consists of interesting or updated information about the flora and fauna in Malaysia.

TIPS

- Put up fun facts of different animals and plants in Malaysia.
- You can put results of updated scientific research into infographics, and even comic styles!
- Share some of the environmental projects done in your school or with nearby communities.

All the contents above are only suggestions

HOW CAN WE DO IT?

Problem(s)?

The students have very little knowledge about flora and fauna in Malaysia.

Goal?

To increase understanding of flora and fauna found in Malaysia, and to appreciate them.

Target Audience?

School community and surrounding community.

Measure of Success?

Knowledge of students on flora and fauna in Malaysia.

Collaborators?

Environmental oriented club, Science club, Scouts and teachers.

Resource Streams?

Parent-Teacher Association (PTA).

Cost?

<RM100

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All the contents above are only suggestions

DIFFICULTY: ★★☆☆

AQUARIUM



Develop a simple aquarium system in the school.

DID YOU KNOW?

By having an aquarium in the school, students can learn about the aquatic ecosystem by watching the way fish communities interact as new fish are added or when baby fish (hatchlings) are born.

FUN FACT

Small fish are also called fry, fingerlings, or juveniles depend on their sizes or maturity.

HOW CAN WE DO IT?

Problem(s)?

Lack of flora & fauna present in school environment.

Goal?

To allow students and teachers to learn more about fish species and to appreciate them.

Target Audience?

School community.

Measure of Success?

Survey on how well the students know about the aquatic ecosystem.

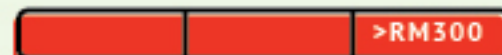
Collaborators?

Science teachers, intergrated living skills club (Kemahiran Hidup), and scouts club.

Resource Streams?

Parent-Teacher Association (PTA).

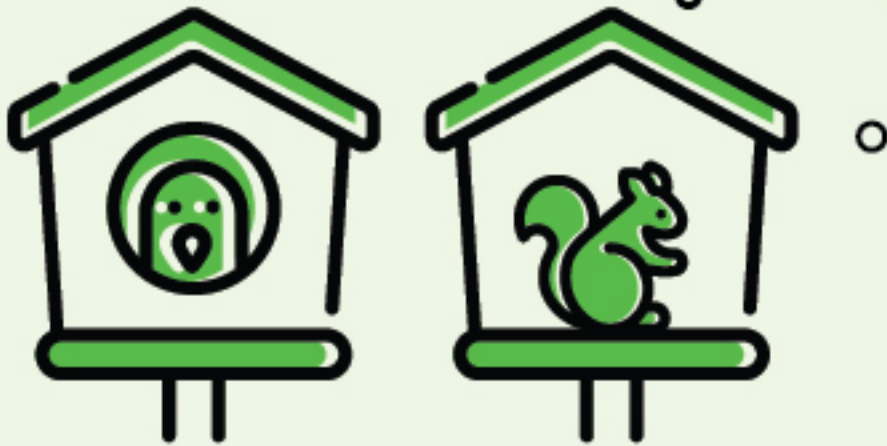
Cost?



DIFFICULTY:



ANIMAL HOMES



Make animal homes such as bird boxes in the school.

DID YOU KNOW?

These nest boxes are not only for birds, but also for butterflies and other SMALL mammals.

HOW CAN WE DO IT?

Problem(s)?

There are few animals spotted in the school compound.

Goal?

To allow students to observe animals in a safe yet inclusive manner in the school compound.

Target Audience?

Students.

Measure of Success?

Number of animals spotted in the manmade animal homes.

Collaborators?

Life Skill (Kemahiran Hidup, KH) teachers, environmental club.

Resource Streams?

Parent-Teacher Association (PTA).

Cost?

RM100 - RM300

DIFFICULTY: ★★★

+ GREENHOUSE



Build a greenhouse that consists of different plant species.

TIPS

You can grow the plants by using aeroponic, hydroponic, or aquaponic systems. Set up a timetable for each class to take care of the greenhouse. You can sell the harvest to the school, parents, and even the surrounding communities too!

All the contents above are only suggestions

HOW CAN WE DO IT?

Problem(s)?

Students do not have opportunities to observe the life cycle of plants in school.

Goal?

To expose students to different plants and encourage them to raise fund to support their conservation activities in the school.

Target Audience?

School community and surrounding community.

Measure of Success?

The amount of money earned and survey on how much the students know about the flora in Malaysia.

Collaborators?

Gardeners, social enterprise, NGOs, teachers.

Resource Streams?

Sponsorship from community, Parent-Teacher Association (PTA), fund raising.

Cost?

>RM300

All the contents above are only suggestions



DIFFICULTY: ★★★



MINI HABITAT



TIPS

- Create a pond to attract wet habitat species like frogs, terrapins, even birds! Add some water plants and fish to reduce the growth of algae.
- Plant sunflower to attract more insects and birds.
- Turn food waste from canteen into compost and use it as fertiliser for the garden.

HOW CAN WE DO IT?

Problem(s)?

Students do not have the opportunity to learn about flora and fauna closely.

Goal?

To increase the knowledge of the students about natural habitat through creation and interaction with the mini habitat.

Target Audience?

School community.

Measure of Success?

Survey on how much the students know about the natural habitat of the animals.

Collaborators?

Teachers, non-teaching staff, environmental oriented club.

Resource Streams?

School fund, Parent-Teacher Association (PTA).

Cost?



DIFFICULTY: ★★★

THEME NIGHT



Organise a theme night and invite family, friends and other relatives to talk about the protection of local wildlife species. You can organise a game night as well, or invite local NGOs to give a talk too!

TIPS

Make sure to set up the theme night in an original and engaging manner. Feel free to decide what your theme night should look like (workshops, movie screening, theater play, etc.) as long as it serves the end goal of raising awareness of the need to protect wildlife.

HOW CAN WE DO IT?

Problem(s)?

Lack of engagement between students and other groups in the society on the importance of wildlife.

Goal?

To raise awareness of the need to protect wildlife among students and their community members.

Target Audience?

Students, family members and other community members.

Measure of Success?

Enhanced awareness of the need to protect wildlife.

Collaborators?

Teachers, parents, school clubs, NGOs and communities nearby.

Resource Streams?

Parent-Teacher Association (PTA).

Cost?

>RM300

DIFFICULTY: ★★★

CONSERVATION CENTRE



Visit a conservation center which protects wildlife. Then write a report about this field trip afterwards to share your thoughts and impressions.

TIPS

Prepare yourself well to get the most out of the field trip. Conduct preliminary research to find out more about the conservation center. Make sure you have at least two interesting questions that you could ask during the field trip.

HOW CAN WE DO IT?

Problem(s)?

Lack of student engagement with community impairs initiatives which are aimed at protecting wildlife.

Goal?

To demonstrate the importance of conservation activities to students.

Target Audience?

Students.

Measure of Success?

Enhanced awareness among students through the value of conservation activities, as shown in their reflective reports.

Collaborators?

Local conservation centres.

Resource Streams?

School fund, Parent-Teacher Association (PTA).

Cost?

>RM300

QUICK FACTS



Rainforests

are among the most diverse ecosystems on earth! Estimated to be over 130 million years old, Taman Negara is Malaysia's premier national park and one of the world's oldest rainforests.

Planting

certain types of trees outside your home or school is one way to combat the decrease in biodiversity because it helps to control climate! Remember to plant local species, because invasive plant species have an impact on the diversity of local species. They might affect water availability and damage the quality of soil nutrients.



Preserving

a species and its habitat is one way to ensure an increase in the biodiversity!



Butterflies, moths and dragonflies are indicators of a healthy environment and ecosystems.



Approximately one third of the food we eat is the result of honey bee pollination!



Plant flowering trees or shrubs, construct a shelter for bees to protect them, work with organisations to save our key pollinators.

MALAYSIA'S ENDANGERED WILDLIFE

THE MALAYAN TIGER



- Lives in Peninsular Malaysia's forests.
- Their future is at stake, threatened by poaching, habitat loss, and overhunting of their primary prey.
- A tiger's night vision is six times better than humans!
- With fewer than 200 tigers left, Malaysia is facing a serious crisis of extinction.

THE TURTLE

- Lives in the sea.
- Turtling is the hunting of turtle and their eggs. They are losing homes due to pollution.
- Turtles lay hundreds of eggs each nesting season, but only some will hatch very few can survive into adulthood.
- Malaysia has four different turtle species, which are the Leatherback, Green, Hawksbill, and Olive Ridley.



THE ORANGUTAN

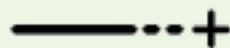
- Lives in the forests and is called arboreal, which means living in trees.
- The population has declined drastically in the last 20 years due to conversion of forests to plantations.
- They make a new nest to rest in every night by bending or breaking leafy tree branches!
- Adult orang-utans are solitary, meaning that they like to live on their own (except during mating).



THE BORNEO ELEPHANT



- Lives in lowland forest and along valleys in Sabah.
- The primary threat for elephants, like all other wildlife, is the ultimate loss of precious habitat.
- Borneo elephants love durian and will roll the entire fruit - spikes and all - in mud, then swallow it whole!
- One adult can eat up to 150kg of vegetation per day, feeding mostly on species of palms, grasses and wild bananas.



58%

**OF EARTH'S LAND SURFACE HAS
ALREADY LOST MORE THAN ENOUGH
BIODIVERSITY DUE TO
DEFORESTATION, POACHING, AND
ILLEGAL TRADE.**

**ARE YOU READY TO PROTECT OUR
BIODIVERSITY?**



For more information on Eco-Schools Programme
and other activities we organise, visit www.esdmy.com



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