





Background

The NParks Community in Nature (CIN) Schools Award is initiated as a new recognition scheme to acknowledge educational institutions, educators, and students who advocate for the conservation of local biodiversity.

The award aims to:

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- Encourage stakeholders from the education sector to take on a more active role to conserve our biodiversity
- Provide a networking platform for educators to exchange biodiversity-related knowledge and experiences

Applicants are assessed based on three main award categories, Schools, Teachers, and Students. Each category is then further divided into three sub-categories, Preschools, Primary Schools & Special Education and Secondary Schools & Junior Colleges. There are two award tiers under each sub-category – Achievement of the Year and Merit award.



Panel of Judges

The judges for the CIN Schools Award are experts in the fields of education and biodiversity conservation. They come from both the public sector and the nature community. Their diverse backgrounds help enrich the evaluation process while at the same time maintain transparency and objectivity.

Entries were evaluated in two phases by internal and external panellists. Phase One assessments were carried out by judges from the National Biodiversity Centre, NParks. We are extremely honoured to have the following judges represent the Phase Two evaluation panel for the inaugural CIN Schools Award.

 Dr Shawn Kaihekulani Yamauchi Lum President, Nature Society (Singapore) Senior Lecturer, Asian School of the Environment, Nanyang Technological University

2. Dr Andie Ang Hui Fang

Research Scientist, Wildlife Reserves Singapore Conservation Fund Chairperson, Raffles' Banded Langur Working Group President, Jane Goodall Institute (Singapore)

3. Ms Anna Koh

Master Teacher / Biology Biology Chapter, Academy of Singapore Teachers



- Background
- 2 Panel of Judges

Schools

School of the Year

- PCF Sparkletots @ Marsiling 7 Blk 32
- MINDS Woodlands 9 Gardens School
- Telok Kurau Primary School 11
- Commonwealth 13 Secondary School

Merit Awards

- Cherie Hearts @ Charlton 15
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- 25 Mee Toh School
- Westwood Primary School 27
- 29 Bukit View Secondary School
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- Yuvabarathi International School 33

Teachers

Teacher of the Year

- 37 Mrs Chen Soon Shan Queenstown Primary School 39 Mr Tan Guan Rui, Jacob
- Commonwealth Secondary School

Merit Awards

- Ms Teo Puay Hoon, Michelle 41 PCF Sparkletots Preschool @ Sengkang Central, Blk 277B
- Mdm Sim Lu Ping, Lina 43 St. Anthony's Primary School
- Mr Tan Chong Han 45 Bukit View Secondary School
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- Ms Susmita Bhattacharyya 49 Yuvabarathi International School

Students

55

Students of the Year

- Hwa Chong Institution 53
- Canberra Primary School 57 Commonwealth Secondary School
- Dunman High School 59

Merit Awards

"We should preserve every scrap of biodiversity as priceless while we learn to use it and come to understand what it means to humanity."

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SCHOOLS

CATEGORY

- E.O. Wilson, Biologist, writer and world leading expert researcher in myrmecology.

PRESCHOOLS

PCF Sparkletots @ Marsiling Blk 32

"We encourage the hands-on approach towards learning in our Little Tots' Butterfly Garden. These enriching experiences allow our young children to have greater appreciation and respect for nature that lasts into adulthood." – Mdm Noraini Bte Mohd Tap (Senior Centre Principal)

Bringing Nature to the School

After careful study, research and observation, the principal and teachers decided to revamp an underused space of the school, turning it into a butterfly garden. This was to bring flora and fauna closer to the children and enable them to reap the countless benefits gained from frequent interactions with nature.



The team drew up an action plan and worked with community partners such as the nearby Al-Iman Mosque and Community in Bloom (CIB) Ambassadors to learn more about butterfly-attracting plants. A gardener was also engaged to

Little Tot's Butterfly Garden.

complete the setup of the butterfly garden. From planning to completion, the process took about six months. The resulting 'Little Tots' Butterfly Garden' serves as a wonderful outdoor classroom for children to learn about the life cycle of butterflies and their associated plant species. To enrich the learning experience, the children were also brought on learning journeys to the Butterfly Gallery at Science Centre Singapore.



Students looking out for butterflies in the Little Tots' Butterfly Garden.

SCHOOL OF THE YEAR

Meeting Children's Learning Needs

In addition to regular lessons, teachers introduced the children to our native flora and fauna, through activities such as Playtime sticker book and 'An Adventure in a City in a Garden' picture book. Lessons were planned according to the children's learning needs. Interactive resources such as game boards, play cards and stickers were also used to engage the children's senses, making learning fun and meaningful.



A teacher facilitating a card game from 'An Adventure in our City in a Garden' picture book.



Students observing urban wildlife in the neighbourhood.

Learning journeys to nature areas like Sunaei Buloh Wetland Reserve were organised to introduce children to the mangrove habitat. Experiential learning like these stimulate the children's interest and curiosity towards the natural world and can lead them to develop a greater interest in areas like botany and biology.

MINDS Woodlands Gardens School



PRIMARY SCHOOLS I SPECIAL EDUCATION

SCHOOL OF THE YEAR

"Nature is the perfect classroom where learning is authentic and meaningful for the students. Through NParks school programmes, our students are given the opportunities to contribute in ways that they can. We hope that our actions make a difference!" – Ms Jenny Lim Geok Hong (Senior Teacher)

Commitment to Biodiversity Education



Students planting trees together with Principal Mr Lawrence Chong.

In 2016, the school transformed several plots of unused spaces in its compound into a thriving butterfly garden. Since then, the garden has become a muchloved outdoor classroom for students, a place where they engage all their senses by observing the flora and fauna there. During the annual biodiversity week, teachers share material about native butterflies and their host plants with their classes.

Teachers at MINDS Woodlands Gardens School (MINDS WGS) infuse biodiversity knowledge into the curriculum. For instance, books that feature flora and fauna found in the school were given to students during Mass Reading Times, and on Literacy Reading & Recreation Day, students participated in a guided walk at Sungei Buloh Wetland Reserve to learn about migratory birds. Teachers also adapt resources from various biodiversityrelated enrichment programmes to make them more relevant for their students.



Students assisting in a habitat enhancement event at Sungei Buloh Wetland Reserve in 2018.

Reaching Out to the Community

MINDS WGS proactively shares best practices in biodiversity education with the community. It opens its campus to different partner schools several times a year while senior students, guided by teachers, conduct tours around the school's gardens for parents and visitors.

The school takes part in the annual Festival of Biodiversity, reaching out to the public and sharing about its greening journey. As active members of the 'Friends of Sungei Buloh Wetland Reserve' network, the school



Mr Foo Jit Leang, a local butterfly enthusiast, teaching students about caterpillars found in their garden.

frequently organises outreach activities at the reserve. In 2018, students participated in a competition to take photographs of the flora and fauna found in the mangroves. Winning entries were exhibited in the school and



A student sharing with members of the public about the biodiversity found in their school compound during the Festival of Biodiversity 2019.

at the Reserve during World Migratory Bird Day.

Through experiential learning activities, the school hopes its students will grow to appreciate and care for nature, and pick up some important life skills at the same time.

Telok Kurau Primary School

"The sustainability of our city depends greatly on nature education, to prepare our young ones for the stewardship of our natural environment. This can then lead to a better quality of life for all Singaporeans." – Ms Tham Sau Ngor (Teacher I/C, Environmental Education) & Ms Tok Sock Ling (Teacher)

Students as Nature Ambassadors

Telok Kurau Primary School has long placed students at the heart of its nature education framework. Since setting up a butterfly garden in 2017, Green Ambassadors have been involved in the planting, garden maintenance, and monitoring of fauna diversity in the school. Each species sighted has been diligently documented. To date, at least 14 different butterfly species have been recorded from the garden! The garden also serves as an important outdoor learning space for science lessons, particularly on the topic of life cycles.





medium in an upcycled tyre planter at the butterfly garden.

Apart from nurturing these Green Ambassadors, the school also participates in various biodiversityrelated enrichment activities, such as Playtime, BioBlitz for Schools, Green Wave tree planting, and Young Hearts for Conservation at Ubin. Through these activities, teachers hope that all students will grow to appreciate our flora and fauna and learn to protect them.

PRIMARY SCHOOLS I SPECIAL EDUCATION

SCHOOL OF THE YEAR

Through student-led assembly talks, selected Green Ambassadors share topics ranging from the butterflies found in the school to the raptors of Singapore. Some senior students have also been trained to conduct guided walks for their juniors, using interactive activities like quizzes and games to enhance the experience.

Reaching Out to the Public



Student leaders sharing information about Singapore's raptors with their peers during an assembly talk.



Students participating in an Invasive Species Management programme at Dairy Farm Nature Park.

The school also reaches out to the preschools found within its neighbourhood. Preschool children are invited to attend guided walks led by Green Ambassadors to learn about the life cycle of butterflies. In 2018, the school hosted over 60 kindergartens!

Through the Science Communication for CIN Ambassadors programme, students created informative posters on different butterfly species, that were then shared with the public during the Festival of Biodiversity 2019.

By involving students in garden care and outreach activities, the school hopes to reconnect children with nature and encourage them to protect our local flora and fauna.

SECONDARY SCHOOLS I JUNIOR COLLEGES

SCHOOL OF THE YEAR

Commonwealth Secondary School

"Our school aims to be a School in Nature — one that looks beyond merely greening, but at how students and staff can co-exist with nature and be custodians of our wildlife and environment." – Commonwealth Secondary School

Creating a Safe Haven for Wildlife and Humans

Commonwealth Secondary School has been a West Zone Centre of Excellence for Environmental Education since 2008. The school believes that environmental consciousness stems from an understanding of the natural world. When this relationship is built, students develop a sense of duty to protect the environment.



Since 2012, the school has undergone multiple habitat enhancements to create its very own eco-habitats. The resulting Rainforest, The Stream, and The Wetland have become safe havens for wildlife, attracting visitors such as the Malayan Monitor Lizard, Blue-winged Pitta, Reticulated Python and even a Black-spitting Cobra. The diverse eco-habitats also serve as perfect



A nesting Pink-necked Green Pigeon in the school compound.

outdoor classrooms for teaching and learning.

Due to its regular wildlife sightings, the school partnered with the Animal Concerns Research and Education Society (ACRES) to train a team of teachers in wildlife rescue. This ensures the school is well-prepared when encountering any wildlife in distress.

Nurturing Students to be Stewards of our Environment



Students and teachers enhancing the environment during the annual Green Wave tree planting event.

Students from the Eco Club are actively involved in fauna monitoring through regular biodiversity surveys within the school grounds. When there were frequent incidences of birds striking glass windows, students devised a solution to reduce reflection by pasting non-reflective strips onto glass surfaces facing The Wetland where many birds like the Pink-necked Green Pigeon frequent.

Community Outreach and Engagement

To reach out to the public, the school publishes a biannual CWSS Biodiversity Newsletter. This is disseminated to all students, staff and educators across various institutions.

Over the years, the school has also hosted various workshops and tours for local visitors and international delegates to share this journey of building a school where enhancing biodiversity is a key part of life. Through its many activities, the school seeks to inspire others to nurture the next generation of environmentallyconscious citizens.



Some student leaders sharing their efforts with Dr Lena Chan and Minister Grace Fu during the 2017 Festival of Biodiversity.

Click <u>HERE</u> to view the CWSS Biodiversity Newsletter or scan the QR code:



PRESCHOOLS

Cherie Hearts @ Charlton Pte. Ltd.

MERIT AWARD

"We encourage our little Cherians to love and care not only for the trees but also the biodiversity on the planet." – Cherie Hearts @ Charlton

Biodiversity in Curriculum

Cherie Hearts @ Charlton Pte Ltd incorporates biodiversity knowledge into its daily teaching and learning through a variety of activities. Teachers use shared resources to promote environmental literacy, teaching students about the flora and fauna found in our City in Nature.

They also conduct ad-hoc enrichment activities such as the Playtime activity where children learn about local animal and plants through an interactive sticker book. These programmes have benefitted more than 250 students since 2015.



A teacher sharing a story about reptiles and amphibians with the class.

Environmental Stewardship

The children are involved in caring for the centre's garden, that is well-planted with native trees as well as a variety of edibles. The garden attracts many pollinators like butterflies, insects and birds. Once, students even observed a bird nest being built in the garden!

To tend to the garden, a simple watering roster has been set up for the children. This serves as a valuable lesson for them to learn how to take care of the environment, and more importantly, to understand the importance of biodiversity and conservation of our greenery.



A teacher guiding her students to transplant a Rose Myrtle plant for 2020 Green Wave.



A student matching stickers in the Playtime with Herp Squad activity book.

Skool4Kidz Campus @ Sengkang Riverside Park



"Nature education helps children understand how human activity impacts our world. The young learn that nature itself provides us with opportunities to discover, be creative and to solve problems." - Ms Siti Aida Binte Razali (Centre Principal)

Extending Learning Outdoors

The teachers at Skool4Kidz @ Sengkang Riverside Park make it a point to enrich their students' education through outdoor learning. After completing the Playtime with Doo and Ollie activity book, a learning journey to the River Safari was organised so that children can learn firsthand about the differences between a manatee and a dugong.

Time is set aside for discussions before, during and after every programme. This allows teachers to better understand the children's learning needs and to evaluate each lesson's outcomes.



the differences between a manatee and a dugong.



PRESCHOOLS

MERIT AWARD



with Doo and Ollie activity book.

During one of its Green Wave tree planting activities, the children got to learn about the Bamboo Orchid, a species native to Singapore. To enrich this learning experience, teachers conducted a lesson on the different types of orchids and their life cycles for their students. After this, children were given the responsibility to water and care for some plants following a schedule drawn up by the teachers. Through these activities, the school hopes to instil in the children a sense of ownership towards the environment.



Children are given the opportunity to learn about flora and fauna within their campus.

Anderson Primary School



PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

"Nature contains a wealth of existing and untapped resources and knowledge. Through nature education, we discover that we are part of the ecosystem on Earth, and learn to appreciate the world better." – Mr Ivan Ng Yong Leng (Level Head, Science)

Enhancing School's Habitat for Teaching and Learning



Students observing parts of a plant with assistance from a nature guide.

created a Biodiversity Garden. Since then, Green Activists in Anderson (GAIA) club members have taken care of the garden and keep track of the school's fauna population through annual biodiversity surveys. The data collected is uploaded on the school's website. All students can view these statistics. Data from long-term monitoring has revealed an increase in fauna diversity, such as butterflies and birds! From its academic curriculum to participation in external activities, Anderson Primary School has brought urban biodiversity closer to their students.

In 2017, the school introduced 15 species of native plants to enhance its compound, through the Greening Schools for Biodiversity programme. In the same year, the school

Students learning about basic stem-cutting

techniques from a horticulturist.

As part of the continuous effort to educate students on urban flora and fauna, the Biodiversity Garden is also frequently used as a teaching tool for science, particularly on topics such as life cycles. By connecting theories to the real world, teachers hope that students can visualise scientific concepts better, and grow to appreciate the biodiversity around them.





Students conducting biodiversity surveys to keep track of the school's flora and fauna.

PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

Canberra Primary School

"When we invest the time and effort to educate our younger generation on biodiversity and environmental appreciation, we will then create a more sustainable future." – Ms Emily Quek Pei Wen (Level Head, Science) & Mr Kirupanantha Kumar (Vice Principal)

Performing for Biodiversity Awareness





Using the internet, students searched for information related to humanwildlife interaction in Singapore.

For the past two years, students at Canberra Primary School have produced skits to raise awareness of Singapore's urban biodiversity. This was done under the Science Communication for CIN Ambassadors programme.

The final products were presented on several occasions – in school and during the Festival of Biodiversity 2018 and 2019. To complement their performances, the students have also taken the initiative to create relevant guizzes and posters to engage their peers. Their effort has reached out to a total of 1,300 students and staff within the school, and members of the public who attended the two Festival of Biodiversity.

Through performing arts, the school hopes that the students can learn about our local flora and fauna in a fun and engaging manner, and eventually grow to appreciate them.



Group photo with Speaker of Parliament Tan Chuan-Jin and Minister Desmond Lee during the Festival of Biodiversity 2018, after their marine-themed skit performance.

Click <u>HERE</u> to watch the skit by Canberra Primary School or scan the QR code:



Hougang Primary School

"Students from our school appreciate and understand the importance of biodiversity. They will become future leaders in the conservation of our biodiversity." – Mr Mohan Krishnamoorthy (Level Head, Science)

Innovator in Greening

Hougang Primary School has been an innovator in the field of biodiversity conservation for the past decade. From narrow, barren stretches along fences to DIY floating wetlands, the school has found ways to enhance these unassuming spaces with native, biodiversity-attracting plant species. This has resulted in a rich ecosystem comprising a Native Species Walk, Butterfly Garden, Rainforest, and Freshwater habitat.

The school has also set up a nursery to better support its greening efforts. To date, it has planted over 60 different species of native plants. After years of habitat enhancement, the school's landscape has been transformed into a thriving haven for urban biodiversity.



A few students constructing a floating wetland for the school pond.



An old concrete tank was used to create a thriving wetland habitat.



Students planting a few native Spleenwort ferns around their school compound.

Students' Involvement in Biodiversity



Students tracking and recording butterflies during one of the biodiversity surveys.

identify different species and conduct the surveys independently. Finally, students act as ambassadors, reaching out to members of the public during events such as Open House, to inform them of the school's greening and conservation efforts.

By involving students in biodiversity conservation and habitat enhancement efforts, the school hopes that the students can become stewards of the environment in future.

Click <u>HERE</u> to explore an interactive map featuring the different habitats in Hougang Primary School or scan the QR code:

The Green Club members are actively involved in planting, propagation, and maintenance of all plants in the school. In 2019, they constructed three floating wetlands for the school pond to attract dragonflies.

Biodiversity surveys are frequently held to document the flora and fauna in the school. Students are also taught to



Visitors attending a student-led guided walk during the school's Open House.



PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

Mee Toh School

"All of us are transient inhabitants of Mother Earth. We have the collective responsibility to seed the values, skills and knowledge for environmental sustainability in our young! Educating our children about nature ignites their sense of wonder and appreciation for our natural environment. These form the bedrock for a lifetime of responsible ecocitizenship." – Mrs Wang-Tan Sun Sun (Principal)

Environmental Education



Students observing a Yellow-vented Bulbul chick near the school pond.

Experiential learning is weaved into Science lessons to provide opportunities for students to interact with nature at the school's eco-garden. Students take photographs of their observations,



Mee Toh School adopts a whole-school approach towards environmental care, involving stakeholders such as parents, external environmental partners, alumni, staff and even canteen vendors!



During a workshop at Lee Kong Chian Natural History Museum, students had the chance to get up-close to a rhinoceros horn.

document them digitally and then use the knowledge gained in their lessons. Through these eco-trails, they learn the concepts behind biodiversity and life cycles of animals and plants.

Students documenting the fauna around their school.

Students as Nature Stewards

Nature Lovers Club students meet weekly to learn about local biodiversity and share knowledge on common flora and fauna. With guidance from their teachers and the Nature Society (Singapore), students meticulously record environmental data in the school. They conduct regular biodiversity surveys within the school grounds to monitor the population of fauna, such as butterflies and birds.

On top of this, students also initiated field surveys at the nearby Lorong Halus Wetland, which has been adopted by the school. To spread awareness on local biodiversity, students consolidate what they have learnt into information boards, bookmarks, and flyers, which were then used as educational materials during Open House and CCA Awareness Day.

Students also engage in Interdisciplinary Project Work and Values-in-Action projects in environmental topics as part of the curriculum. For example, in 2020, Primary 2 students came up with biodiversity learning trails within the compound for their peers.

With stronger awareness and a better appreciation for the natural world, students are moulded into eco-citizens and encouraged to adopt sustainable practices for the environment.



Westwood Primary School



PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

"Connecting the young with nature is the key to sustaining biodiversity on earth. One can look towards nature for both solace and inspiration. We must all reflect, appreciate and be humbled for being in harmony with nature allows us to be in harmony with ourselves." – Mrs Naseema Ansar (Lead Teacher, Science)

Biodiversity in Daily Learning

Westwood Primary School takes pride in providing a thriving habitat for a variety of flora and fauna. Westwood Gardens comprise of smaller areas dedicated for different learning objectives such as a Sensory Garden, Aesthetic Garden, Desert Garden, and Eco Aquarium that were set up in 2014. Since 2017, the school has started enhancing its spaces with biodiversity-attracting native plants. These plants have thrived and parts of the school have been transformed into vibrant habitats for biodiversity.



Students planting a few native Fishtail Ferns in the school garden.



During a lesson on life cycles, Primary 3 students releasing two newly eclosed Plain Tiger butterflies into the school garden.

Fauna like birds, butterflies and dragonflies are now a common sight. Their presence provides good enrichment opportunities for science lessons and cocurricular activities. Each year, students conduct BioBlitz surveys to document the commonly seen fauna. It is rewarding to see students keen to find out more about the biodiversity around them. The school actively engages the neighbourhood kindergartens during its annual K2 Outreach Day. Students assist in preparing learning materials, such as interactive sticker cards, and lead the preschool children on a butterfly trail at the school.

Through various hands-on activities, teachers hope that the students can gain a deeper appreciation and love for nature and understand that every individual can make a difference.



A student helping a kindergarten child to complete his Butterfly Life Cycle activity card.

Click <u>HERE</u> to visit Biodiversity @ Westwood Gardens, or scan the QR code:





Students from the Green Club conducting a guided trail for children from a nearby kindergarten.

SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD

Bukit View Secondary School

"Our school aims to be a prototype green school with a conducive and vibrant learning environment, serving as an educational platform for students to learn, experiment with, and develop innovative ideas and products that will benefit the community." – Bukit View Secondary School

Environmental Education as Core Belief



Student leaders conducting a guided walk along the Eco Trail for a group of primary school students.

The seed for a culture towards environmental conservation was planted since 1986 when Bukit View Secondary School was opened. Now in 2020, the school has undergone multiple phases of habitat enhancements by working

with various stakeholders. For example, its Eco Garden has been transformed into a vibrant learning space teeming with biodiversity-attracting flora and fauna. It now serves as an outdoor classroom to enrich students' learning on topics such as energy, waste management, and biodiversity.



Students observing the insect specimens at Lee Kong Chian Natural History Museum.

Students are also involved in garden care and biodiversity surveys. Data collected from long-term monitoring have shown that there has been an increase in fauna diversity in the school over the years!

The school is committed to developing its students into empathetic future leaders who are ethical advocates that contribute towards environmental sustainability.



A student leading a discussion during the annual Student Environmental Leadership Conference.

Through the distinctive enhanced environmental science programme JOULES (Junior OUtstanding Leaders in Energy for Sustainability), Secondary 1 to 4 students are taught topics such as design thinking for the environment and sustainable energy.

Under JOULES, a Student Environmental Leadership Conference is organised by students for students and held annually for about 200 primary school children. The conference consists of talks and student-led guided trails to raise awareness and share best practices in environment and biodiversity conservation. After each conference, the student organisers review and propose ways to improve the event.

Through environmental curriculum and leadership training, students can learn to appreciate our urban biodiversity, and thereby promote its conservation to others around them.

Click <u>HERE</u> to read more on the school's

environmental conservation journey, or scan the QR code:





Nanyang Girls' High School



SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD

"Our school aims to nurture students to make informed decisions and take responsible actions in issues that concern the environment." – Nanyang Girls' High School

Developing Ecologically Literate Student Leaders

Teachers at Nanyang Girls' High School (NYGH) incorporate biodiversity into their students' learning via the academic curriculum and extra-curricular

activities. The school's two gardens, a backyard biodiversity garden and a rooftop edible garden, are partly maintained by students. The gardens boast a variety of flora and fauna. Students conduct annual biodiversity surveys to document the fauna population while student-led guided trails are also held for guests during the school's Open House.



Students participating in the Forest Restoration Action Plan at Rifle Range Nature Park.

The school's backyard garden is cared for by the students.

In 2017, the school was invited by Singapore Botanic Gardens to conduct station guiding for visitors at the opening of the Keppel Discovery Wetlands at the Learning Forest. Teachers and students from the NYGH Green Club took up this challenge to raise public awareness of the importance of wetlands. This experience spurred students to play a more proactive role to conserve local biodiversity. In 2019, they took part in NParks Forest Restoration Action Plan, where students carried out weeding and planting at the upcoming Rifle Range Nature Park. Under NYGH's Student Initiated Assignment (SIA) framework, students can

undertake tasks and apply classroom learning to the real world. The latest addition to this is the Nature and Conservation theme, where students participate in biodiversity conservation work. One notable project was completed under the mentorship of NParks staff from Pulau Ubin. Students assisted in the study of birds and bats on the island and created information tags for trees while collecting data on the trees' health. The findings were presented in infographics and shared with the guests of Ubin Day 2018 and the Festival of Biodiversity 2019.



Students were taught how to tag trees and collect relevant data during their SIA project at Pulau Ubin.

Through the SIA programme, teachers hope to nurture future leaders who can make informed decision to conserve the environment.



A student sharing about their projects with President Halimah Yacob and Minister Desmond Lee during the Festival of Biodiversity 2019.

Yuvabharathi International School

"We believe that if children are taught to love and take care of the environment from an early age, our world is in safe hands." – Yuvabarathi International School

Habitat Enhancement for Biodiversity

Yuvabharathi International School been actively has promoting the understanding of local biodiversity through participation in nature-related programmes. Since participating in the Greening Schools for Biodiversity programme in 2015, the school has been enhancing its surroundings with various biodiversity-attracting plants. The resulting garden attracts a variety of butterflies and birds, creating good learning opportunities for its students.



Capitalising on its location next to Jurong Lake Gardens, the school conducts regular learning journeys to the garden. Students observe and document the rich variety of flora and fauna found there, often learning to identify certain species.

Students from the Eco Club plant, care and monitor the growth of the school's garden. This includes observing the health of the plants and collecting data on resident wildlife.

During weekly meetings, students learn about various local and international environmental issues, ranging from waste management to biodiversity conservation. They also plan and organise outreach activities for special occasions such as the school's Open House and public roadshows. They have participated in the Festival of Biodiversity several times, conducting art and craft activities to engage the younger audience.

By involving students in both school-wide and public engagement events, the school hopes to create a sense of ownership among students and encourage them to make responsible decisions for the well-being of all living things.



Students helping a child with her craft activity during the Festival of Biodiversity 2018.



A group of students planting a native Smallleafed Oil-fruit tree in the school garden.

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SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD

Every individual matters. Every individual has a role to play. Every individual makes a difference.

SNY

TEACHERS

CATEGORY

0

– Dr. Jane Goodall, World leading primatologist and anthropologist

Queenstown Primary School

PRIMARY SCHOOLS I SPECIAL EDUCATION

TEACHER OF THE YEAR



Mrs Chen Soon Shan chairs the school's Applied Learning Programme committee that oversees the implementation of the Environmental Project-based Learning at Queenstown Primary School (E-PBL@QtPS) programme. She leads the programme's design and implementation and is also responsible for securing funding to support its development and execution.



Mrs Chen Soon Shan

Senior Teacher (Science)

"I believe strongly in empowering students. For our students living in urban areas, nature education should take greater precedence so that they can develop positive attitudes and a sense of ownership towards the natural environment."



a vertical garden, serving as a learning space for students.

E-PBL@QtPS aims to raise awareness on issues such as wildlife conservation, forest protection and global warming. Through this, Mrs Chen wants her students to develop critical thinking skills, so that they will become future leaders capable of responsible environmental decision-making. The programme adopts a two-tier approach towards environmental education that impacts the whole school. In Tier 1, lessons on topics such as wildlife and forest conservation, waste management, and global warming, are offered to students from all levels. In Tier 2, programmes are catered for student leaders from the Environment Committee and are meant to empower them through student-initiated projects and



public outreach events. These student leaders are heavily involved in planning



Students attending a lesson at the digital garden trail.

and carrying out such projects.

Mrs Chen is also actively involved in the greening of the school's environment. Through her efforts, the landscape has been transformed into a thriving urban oasis. Students can better appreciate nature and biodiversity around them and are more willing to take ownership of the environment.



Students participating in a field trip at the Singapore Botanic Gardens.

SECONDARY SCHOOLS I JUNIOR COLLEGES

TEACHER OF THE YEAR

Commonwealth Secondary School



Mr Jacob Tan Guan Rui believes that every student can be an "Imaginative Trailblazer" capable creating innovative solutions of overcome environmental issues. to He co-designed a multi-disciplinary elective that focuses on environmensustainability as part of the tal school's newly initiated Science, Technology, Engineering and Mathematics (STEM) Elective. To ensure that the STEM Elective is relevant to real-world challenges, he initiated



Mr Tan facilitating a session for fellow biology teachers under the Ubin Project Education Workgroup.

Mr Tan Guan Rui, Jacob

Senior Teacher (Biology), <u></u>Eco Club Teacher In-charge

"When I teach, I want my students to go beyond understanding the biology concepts. There is no greater joy than to see my students in awe and wonder of the intricacies of life and nature."



his class at Windsor Nature Park.

conversations with agencies such as NParks, World Wide Fund for Nature, Singapore Food Agency, and PUB to seek out collaboration opportunities to enhance his students' learning.

In the last decade, Mr Tan has contributed significantly to the school's habitat enhancement efforts, resulting in a rich diversity of flora and fauna that the school currently enjoys. He turns every wildlife encounter in the school into a learning opportunity for his students. He looks out for opportunities for the school to reach out to the larger community through public events such as the Festival of Biodiversity, where visitors could learn more about the thriving biodiversity in his school and



most importantly, how environmental education is part of the daily school experience. He is also the Chief Editor for the school's biannual CWSS Biodiversity Newsletter, a publication that is shared with students, staff and



Students attending a talk by ACRES during a STEM elective class.

educators across various institutions.

Mr Tan has coordinated learning journeys at the school for trainee teachers from the National Institute of Education for three years. He hopes to inspire them to explore outdoor learning as a powerful teaching tool to reconnect students with nature. Due to his expertise in both biodiversity and education, he was also invited by NParks to be part of the Ubin Project

Education Workgroup as a facilitator for the Biology Chapter Outdoor Learning Journey. The workgroup seeks to inspire other educators to use the diverse ecosystems of Pulau Ubin as living classrooms to teach Biology.

Click <u>HERE</u> or scan the QR Code to find out how a 'perfect day' looks like for Mr Jacob Tan:



PCF Sparkletots Preschool @ Sengkang Central, Blk 277B



PRESCHOOLS

MERIT AWARD



Mrs Teo Puay Hoon, Michelle

K2 English Language Teacher

"Being outdoors creates opportunities for learning in a real-world context. This helps children to be more connected to the environment and encourages them to develop a variety of life skills such as problem-solving and communication."

Mrs Michelle Teo Puay Hoon spearheaded the 'Learning with Nature' project to provide opportunities for her K1 students to discover nature and develop critical thinking skills through outdoor play.

As part of 'Learning with Nature', many fun activities are curated to get children outdoors to explore, have fun and learn. To stimulate children's curiosity and provide them with more real-world experiences, they are encouraged to observe the trees around the



A child uses dried plant material to decorate her drawing, creating a textured layer similar to the bark of a tree



At the Green Corner, children hunt for 'butterfly eggs' using a magnifying glass.

neighbourhood by using their senses to see and feel the textures of the bark of different tree species. The children also learn about the various parts of plants and their functions during these outdoor sessions. This enables them to better understand concepts, as they get to apply the newly gained knowledge in a more authentic context.



Children learning about freshwater habitats during a field trip.

A Green Corner was also set up in each classroom for children to display their nature-themed artwork and trinkets as well as their observations from different activities.

To determine and evaluate the effectiveness of the pedagogies, a series of assessment tools was used. After each lesson, teachers reviewed and discussed the challenges faced and what can be improved. After

several months of observation, teachers noticed that outdoor learning has improved the children's mental acuity and well-being.

Mrs Teo also engaged key stakeholders such as parents and the community by conducting workshops on the benefits of outdoor learning and getting them involved in their children's learning. This was met with much positive feedback and she looks forward to bringing more outdoor learning experiences to her students.



St. Anthony's Primary School



Mdm Sim Lu Ping, Lina

Level Head (Science)

"While many are enjoying the beauty of nature, I hope that someone is taking time to sow the seed of appreciation."

Mdm Lina Sim Lu Ping believes that technology can help her to better engage students and make learning more meaningful. Since 2016, she has been leading the development of a Science Digital Learning Trail for her school.

Instead of traditional plant tags, her team created QR codes for each plant species found in the school's garden. The QR codes link to an Environmental Education website, where information specific to each species can be found.

This website serves as a one-stop learning hub featuring flora and fauna found around the school. Mdm Sim personally checked the content to ensure factual accuracy and relevance to the school's Science syllabus.



A student scanning the QR code for a Crepe Ginger plant during a digital trail lesson.

PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

The digital trail is organised into two main sections – the edible garden and native garden. While on the trail, students can easily learn more about the plants by scanning the QR codes attached to each species. They then complete a crossword puzzle and pen their observations and thoughts as part of an enrichment exercise.

Mdm Sim also invests time and effort to care for all plants in the school garden. She often stays back after school hours to water them and prunes the plants to keep them healthy!

Click <u>HERE</u> to access the Environmental Education website or scan the QR code:





Two students trying to complete a crossword puzzle while learning more about the Fishtail palm!

Bukit View Secondary School



SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD



Mr Tan Chong Han

Teacher In-Charge Environmental Club

"We are all part of the rich biodiversity that Singapore has and we all have a role to play. As a teacher, I hope I can continue to inspire and nurture students to become strong environmental advocates."

Mr Tan Chong Han nurtures students from his school's Environment Club into empathetic citizens and ethical advocates of biodiversity.

Over the years, he has partnered with various agencies and spearheaded many of the school's environmental efforts, including the Junior OUtstanding Leaders in Energy for Sustainability (JOULES) Applied Learning Programme that focuses on environmental conservation by using technology.

As the teacher overseeing the Environmental Club, he has helped to develop the school's Eco Garden. Together with his students, he introduced native biodiversity-attracting plants

and created an Eco Trail.

As part of JOULES, Mr Tan guides his student leaders in the planning and implementing of the annual Student Environmental Leadership Conference (SELC) for primary school students. The student leaders are trained as nature guides to take visitors around the



school's Eco Trail and facilitate discussions on issues related to environmental conservation. More than 200 primary school students benefit from this programme annually.

Apart from school-wide programmes, Mr Tan also guides his students to participate in national biodiversity outreach efforts. They participate regularly in the Festival of Biodiversity where students share about the impact of their school's greening efforts with members of



A student leader sharing about her school's fauna during the Festival of Biodiversity 2018.

the public. Under his mentorship, students have even created a documentary video that highlights local flora and fauna, so as to reach out to a larger audience.



Nanyang Girls' High School

SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD



Mr Koh Chin Seah, Benny

Teacher

"Education in nature is important, fun, and enriching. It provides valuable learning experiences and therapeutic benefits not to be missed as the child grows up."

A love for nature led Mr Benny Koh Chin Seah to develop a new theme of Nature and Conservation under the school's flagship Student Initiated Assignment (SIA) programme. SIA aims to provide students with valuable opportunities to critically and creatively apply their knowledge to real-world situations, so as to prepare them for challenges beyond.

After studying his students' needs, he coordinated closely with the Science Head of Department to devise a project framework that ensures the learning process and outcomes are both meaningful. He initiated conversations with potential partners to mentor projects for these students and worked out the details with interested parties.



A group of students caring for herbs and spices at the Rooftop Garden.

A notable project under the Nature and Conservation theme was completed by working with NParks officers from Pulau Ubin. Under the guidance of Mr Koh and other teachers, students prepared informative storyboards for the fruit trees in the Ubin Fruit Orchard. They also participated in conservation which involves collecting data on birds and bats, as well as tree tagging. Results from the project were presented to guests during Ubin Day 2017, 2018 and the Festival of Biodiversity 2019.



Students presenting their projects to Minister Chan Chun Sing and Minister Desmond Lee during Ubin Day 2018.

Mr Koh contributed to reforestation efforts at Pulau Ubin during the Nanyang Global tree planting event in 2017, where a total of 53 trees were planted. In 2019, he led a group of students in rewilding efforts at Rifle Range Nature Park, under the Forest Restoration Action Plan.

Mr Koh believes in reconnecting young people with nature and is always looking for opportunities to expose his students to the wonders of biodiversity. Thanks to his passion, many students who graduated from the SIA programme have become more environmentally conscious, and can better appreciate the flora and fauna around them.



Students speaking to Prime Minister Lee Hsien Loong and Minister Dr Vivian Balakrishnan during the launch of Learning Forest at the Singapore Botanic Gardens.

Yuvabharathi International School

SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD



Mrs Susmita Bhattacharyya

Secondary Science Teacher Eco Club In-Charge

"To be connected to both nature and children is a blessing; discovering nature with a child is an inspiration."

Mrs Susmita Bhattacharyya is one of the school's pioneer advocate for environmental education. She promotes habitat enhancement through planting, and actively involves her students and colleagues to monitor the biodiversity in school. Under her leadership, a large variety of biodiversityattracting native plants have been planted around the campus since 2014. The resulting butterfly garden and native garden serve as a great outdoor classroom for students to observe and learn about our local flora and fauna.



Students planting a few Sendudok plants in the native garden, under the guidance of Mrs Susmita.

Mrs Susmita believes in cultivating a sense of ownership and responsibility for the environment within her students. Over the years, she has organised many seminars and assembly talks to introduce the topics of biodiversity and species identification techniques to her students. As the teacher-in-charge of the Eco Club, she also imparts knowledge and skills in areas such as garden maintenance, nature outreach, and basic field surveying and species identification techniques to her students. Together with her colleagues, she developed a structured Eco Club curriculum for students to learn about local and international environmental issues, ranging from waste management to animal conservation.



Mrs Susmita trained her students to lead guided walks for visitors of all ages.

Under her guidance, students come up with interesting upcycled craft ideas that highlight local fauna, such as dragonflies, turtles, and even unassuming ants. Through these activities, she hopes the young can learn about local fauna in a fun and engaging manner. Eco Club students are also trained to lead guided walks where they share about the plants and animals found in the school compound as well as other efforts to conserve biodiversity. To date, more than 2,000 local and international visitors have attended these tours.

Mrs Susmita's efforts extend to the greater community. Her students are regular participants at the Festival of Biodiversity, conducting art and craft workshops for younger visitors.



Students conducting a Hawksbill Turtle craft workshop for kids during the Festival of Biodiversity 2019. STUDENTS CATEGORY

It is that range of biodiversity that we must care for - the whole thing - rather than just one or two stars.

0

- Sir David Attenborough, Naturalist and pioneer of nature documentaries

Hwa Chong Institution

Quek Chui Qing, Wang Yi En, Tan Teong Seng, Chang Yu Xin and Dawn Lee Yi Xin



"Through the project, the team has realised that raising awareness about biodiversity conservation isn't only about nature and the programmes we wanted to push out, it's about having empathy and listening to others in the way we want to be listened to." – Tan Teong Seng

A group of five students from Hwa Chong Institution who share a passion for conserving local biodiversity started Project Cynefin to bring nature closer to students through authentic experiences.

As part of the school's 2019 National Day celebrations, the team organised an exhibition to share about commonly seen animals in school. Student volunteers showcased animal specimens at a booth to educate their peers on how humans can impact the environment.



Students showcasing a specimen to their peers during the wildLIVE! exhibition.

SECONDARY SCHOOLS I JUNIOR COLLEGES

STUDENTS OF THE YEAR

During an NParks Rail Corridor event in 2018, the team organised a nature and heritage walk for the public. Participants were pleasantly surprised when they spotted a variety of wildlife during the walk. They also created complementary treasure hunt challenges to engage younger visitors.



A guided walk at Rail Corridor.



Teong Seng and Yu Xin briefing their group before a guided walk at Bukit Timah Nature Reserve.

students.

Apart from terrestrial biodiversity, the

team also organised intertidal walks

for other schools to share the hidden treasures that inhabit our shores. The

team has successfully conducted two

walks at Changi Coastal Walk

and at Sentosa for about 40

An intertidal walk at Changi Beach Park.

Canberra Primary School

PRIMARY SCHOOLS I SPECIAL EDUCATION

MERIT AWARD

Canberra Primary School CIN Ambassadors*



"Through this CIN programme, I have met new friends and at the same time, learnt more about Singapore's biodiversity. I hope to have another opportunity to perform our skit and learn more with my friends." - Churn Jen Shien

CIN Ambassadors from Canberra Primary School share the common goal of raising awareness on Singapore's urban biodiversity. Under the guidance of their teachers, the group produced a skit titled 'Wildlife in Our Urban Life' that encourages positive human-wildlife coexistence.

With 20 students in the team, each played an important role in the production, be it as a scriptwriter, props designer or actor. The team worked responsibly to minimise its carbon footprint, creating most of the props from upcycled materials. Some students also designed guizzes and posters as supplementary materials to better engage their audience.



Two student leaders narrating the story during their drama performance.

The team met up weekly plan the storyline to brainstorm and for new ideas, as well as to carry out rehearsals under the auidance of their teachers. This helped to ensure the story developed well with clear messages for the audience to bring home.

The team performed the skit during a school event for about 1,600 people.

The students also showcased the skit to guests and members of the public during the launch of the Festival of Biodiversity 2019.

Students performing on stage during

the Festival of Biodiversity 2019

Watch the team's biodiversity skit HERE or scan the QR code:



*Canberra Primary School CIN Ambassadors

Lim Issac Shanmugam Saideekshita Negapatan Aster Mary Paray Jesper Tai Hou Teng Neo Seng You Julius Ee Huey En Grace Churn Jen Shien Allvson Choo Jia Yi Jayoma Jahzarra Phoebe Tolete Song Xinrui

Bacay Ken Laurence Bulotano Toh Le En Shavaun Muruganandham Lakshita Sheraz Bin Raashidean Odulio Leo Carlito Tagle Athena Sia Xin En Dini Danish Bin Mohamed Isa Khloe Lim Xin Yi Putri Wardina Syaurah Binte Mohamad Akhir Aimy Maisarah Binte Mohamad Taufik Thana

Commonwealth Secondary School

Thahmina Begum D/O Maideen Abdul Kader and Marissa Nariesta Dessara Binte Salim



"As the President of Eco Club, I appreciate the opportunity to lead my juniors in our outreach efforts. It has been very rewarding to see how their knowledge and passion for nature have grown from the first day until now!"

- Thahmina Begum D/O Maideen Abdul Kader

As the Eco Club student leaders, Thahmina and Marissa spoke regularly with the teachers in-charge to bounce ideas for new projects. With their experience, they guided their peers to carry out various projects that promote a better understanding of local biodiversity and environmental conservation

Their passion inspired many younger members of the club to be more confident in expressing their views.

When given the opportunity to produce a nature-themed documentary, they took up the roles of scriptwriter and producer, leading their peers on the production.



Thahmina and Marissa leading a discussion during an Eco Club meeting.



Thahmina and Marissa sharing with members of the public on the school's biodiversity efforts and STEM elective programme.

It is published as part of the school's efforts to reach out to the wider community about the rich biodiversity found in their school, and contains stories of how humans and wildlife can coexist harmoniously.

SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD

As a team, they documented the school's biodiversity highlighting the different measures taken to promote human-wildlife coexistence in their school. Their efforts culminated in a 6-minute clip that was presented during the launch of the Festival of Biodiversity 2019.

Thahmina and Marissa were also the editors of the school's CWSS Biodiversity Newsletter.



Marissa showcasing a set of animal specimens to her peers.

Watch 'Human-Wildlife Coexistence in CWSS' HERE or scan the QR code:



Dunman High School

Sim Li Xuan, Chan Xin Tong, Chen Zhi Ruo, Li Shuyao and Hnin Ei Wut Yee



"Even as we are surrounded by digital devices, nature education is still extremely crucial to help us realise and treasure the beauty of nature around us. The Earth belongs to all of us and we should be united to protect it." – Chan Xin Tong

The CIN Ambassadors from Dunman High School decided to produce a documentary on park etiquette after studying the behaviours of park users, and how this can affect our urban wildlife. The documentary, titled 'Types of People in the Singapore Botanic Gardens' educates viewers on general park etiquette, and how inappropriate behaviours may directly or indirectly impact wildlife.



One of the biggest challenges faced by the team was having to record many scenes multiple times to achieve the desired effect, only to discover that the audio and video clips were mismatched during post-processing. After brainstorming for solutions, the team decided to leverage on existing resources by replacing the faulty clips with fauna footage.

The video was featured during the Festival of Biodiversity 2019 and was well received by all. Some visitors said that the video serves as a good reminder for everyone to act responsibly to ensure that the environment is conducive for both human and wildlife alike.



The group during a recce trip to the Singapore Botanic Gardens.



SECONDARY SCHOOLS I JUNIOR COLLEGES

MERIT AWARD

The Community in Nature (CIN) initiative is a national movement to connect and engage different groups in the community to conserve Singapore's natural heritage.

Launched in September 2011, this initiative is aligned with NParks' City in Nature vision and Singapore's National Biodiversity Strategy and Action Plan. CIN brings together all of NParks' nature-related events, activities, and programmes.

Through this, we hope to:

- Connect, educate, and inspire diverse communities to actively conserve and celebrate our natural heritage
- Cultivate champions within the community in protecting our natural environments
- Nurture and form partnerships to achieve better biodiversity and social outcomes
- Foster and support community groups and organisations working to reconnect people with nature

One can take things at their own pace, yet have the chance to grow from casually observing to becoming a more active participant in acting for our biodiversity. Interested individuals can choose to contribute to any of the three CIN streams – nature education, citizen science, as well as species recovery and habitat enhancement.

To find out more about CIN and our volunteering opportunities, please visit <u>www.nparks.gov.sg/cin</u>, or write to CIN@NParks.gov.sg.



Share your love for nature and animals at #NParksBuzz #AnimalBuzzSG