

Starting with Education to Address Environmental Challenges (Part 1)

Currently, marine and terrestrial ecosystems and biodiversity are facing various environmental challenges, actions to environmental protection cannot be ignored. In view of this, it is important to implement environmental education activities that could help address different environmental issues. Through enriching students' understanding of biodiversity and environmental issues, it would not only inspire them to participate in environmental protection actions, but also help cultivate future environmental advocates.

Let's take a look at how two schools awarded the Outstanding Award in the "2023 Best Green Education Initiative Award" implemented education programmes in response to the United Nations Sustainable Development Goals (SDGs) and contributed to ecological and biodiversity conservation.



Education Initiative 1: "Ocean Cleaner" School-based Marine Conservation Programme

(Initiated School: Immaculate Heart of Mary College)



Theme

- Marine conservation
- Marine debris reduction



Learning Objectives

- In response to the "SDGs 14: Life Below Water" and take action for marine conservation.
- Allow students to understand the ocean from various perspectives, cultivating their awareness and values regarding environmental protection and thereby active participation in actions to reduce marine litter.
- Cultivate students' environmental awareness and literacy, and nurtured them to become "global citizens".



Targets

- Over 750 students and teachers



Key Learning Areas / Subjects Involved

Science

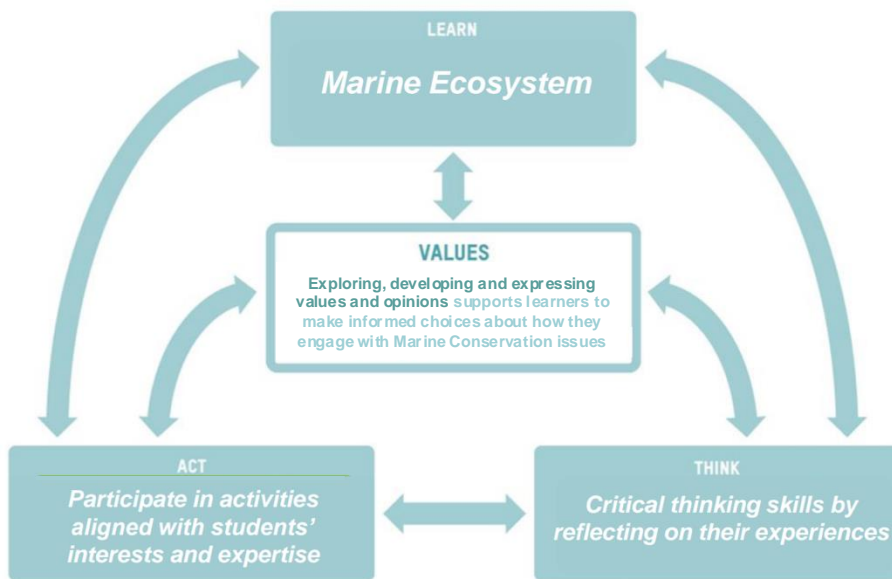
Visual Arts

Personal,
Social and
Humanities

Religion
and Ethics

Content

- Adopted the "Learn-Think-Act" Approach, collaborated with 4 subject panels and 10 external organisations to implement a total of 12 learning activities related to the marine environment:
- Shared learning outcomes on the school website and social media



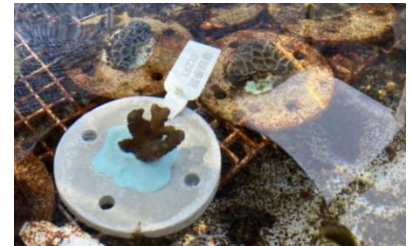
Shared learning outcomes on the school website and social media



Used marine debris to create artworks and promote ocean conservation



Established a school marine debris diving team to help remove marine debris and record relevant data



Research on coral restoration



Coastal eco-tours and clean-up activities



Field study to the fish market to learn about sustainable seafood

Highlights

- The school adopted "Whole-school Approach" to implement the programme, with collaboration among different subject panels and inviting students of all grades to participate in it, which helped raise awareness and understanding of marine conservation among staff and students.
- The school selected marine environment as the main teaching theme. Through the "Learn-Think-Act" Approach to implement a series of experiential activities, a rich learning experience was provided to students, which could deepen their understanding on conservation issues and cultivate a positive attitude towards environmental protection.
- Various activities were designed according to students' learning interests, needs and intelligences, which made them more engaged and enhanced their learning motivation.
- The school established a marine debris diving team comprising students and teachers, to help remove marine debris and record relevant data for international citizen science database of the "PADI AWARE Foundation", thereby contributing to marine conservation.

Education Initiative 2: Environmental Education in the “Living Spirit”

(Initiated School: China Holiness Church Living Spirit College)



Theme

- Experiential environmental education courses with STEM elements



Learning Objectives

- Cultivate students' interest in STEM education and understand the relationship between humans, organisms and the environment by interacting with and rearing different creatures.
- Nurture students' positive values and provide life education during the process of interacting with and raising organisms.



Targets

- F.1, F.2, F.3 and F.5 (Biology) students
- Health and Environmental Conservation Ambassador



Content

Developed ecology-related courses with spiral approach and integrated them into school's formal curricula and examinations:

- Students of each form learnt about environmental conservation through exploring different ecology topics.

F.1
Science
[Terrarium]



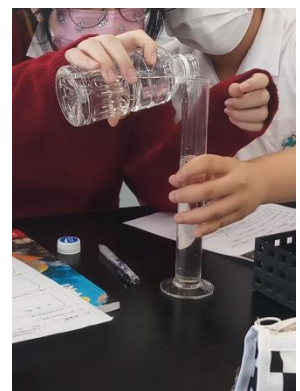
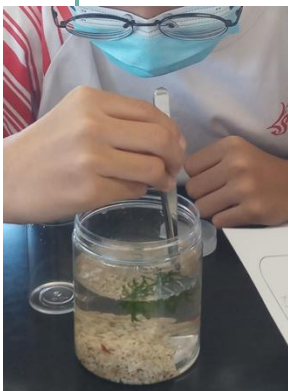
F.2
Science
[Terrarium
and bees]



F.3
Biology
[Jellyfish]



F.5
Biology
[Terrarium]





Content (con'd)



Carrying out Life Education while learning ecological knowledge:

- During the rearing process, students might face issues related to death and new life. If the creatures unfortunately passed away, students were required to explore the causes and implement improvement plans. This process enabled students to understand the value of life and cultivate their attitude of cherishing and respecting life.
- By rearing animals, students could gain hands-on experience on the impact of human activities on the ecosystems, explore and build up relationships with the natural ecology, thereby cultivating a sense of responsibility, commitment and cooperation.



Environmental education promotion:

- Shared teaching experiences on ecology and sustainable development with other schools by organising professional interflow activities for teachers and promoting at the activities held by external organisations.
- Students organised biodiversity workshops at the Hong Kong Science Museum regularly to further promote ecological knowledge and environmental protection messages to the public.



Highlights



- The school allocated resources and arranged students to rear bees, jellyfish and other creatures on campus, providing them with constant opportunities to contact different creatures in daily school life, which demonstrated the harmonious coexistence between humans and nature.
- Ecological content was integrated into school-based curriculum and Values Education through cross-curricula learning, and the topics were extended through spiral approach. This enabled students to explore ecological knowledge and related issues gradually and comprehensively.
- The school provided students with experiential learning opportunities to help stimulate their interest and curiosity in scientific exploration.
- The school actively shared educational experiences and ecological knowledge with other schools and the public, encouraging mutual exchanges and courageous exploration among the school sector, while also promoting the importance of biodiversity to the public.

Summary

Excellent sustainability education programmes not only enhance students' environmental conservation knowledge, but also strengthen their emotional connection with nature and appreciation of its beauty.

Diverse experiential learning activities provide students with opportunities for personal participation and practice, which could deepen their understandings of related topics and leave a profound impression. If Life Education elements had been integrated into environmental education, students would have been further encouraged to cherish the environment and the values of life.



Relevant learning experiences not only cultivate students' environmental awareness, but also equip them with the knowledge and skills to deal with environmental challenges, thereby nurturing the next generation to care for the Earth and ultimately become responsible global citizens and environmental advocates.