

Overview of Student Agency in Environmental Outreach

The Applied Learning Programme (ALP) in Kranji Secondary School activates student agency in promoting environmental outreach. The ALP aims to spur innovations for sustainable living amongst our student community in their chosen areas of interest. Aligning to the United Nations Sustainable Development Goals (SDGs), the ALP focused on the 9 relevant SDGs out of the list of 17. Students acquire design thinking and critical thinking skills and apply them to bring about innovative green solutions to improve our community. Students champion and take action towards Singapore's sustainability goals as eco-stewards.

Our partnership with Republic Polytechnic on environment outreach has also allowed our Green Ambassadors the opportunities to co-facilitate the online seminar on 'Living in Harmony with Nature and the Planet', educating secondary school students on marine life and wildlife conservation and appreciation of solitary bees in preserving biodiversity.

ANNEXES:

- (1) Presentation slides detailing the vision and the key outcomes of the ALP focus on Design Innovation for Sustainable Living
- (2) Programme outline and snapshots of the 'Living in Harmony with Nature and the Planet' Seminar

ANNEX 1:

Presentation Slides on ALP's focus on Design Innovation for Sustainable Living



Vision of our ALP

Design Innovation (Guided by Design Thinking)

- Adopts a **user-centric** lens in analysing authentic sustainable living issues
- Identifies **opportunities** for improvement
- Develops creative **solutions** to address user needs

Sustainable living

- **Eco-stewards** of the environment¹
- **Raising awareness** of the impact of personal decisions on the environment
- Making **conscious decisions** on different aspects of their life – transportation, diet, energy consumption, generation of waste etc



¹ Riding on the Green Plan 2030 which is a whole-of-nation approach to advance Singapore's national agenda on sustainable development, our ALP seeks to capitalise on our current strength in the environment work and to expand into other facets of sustainable living.

Unpacking of Key Focus Areas in Sustainable Living

- 'Sustainable living' here refers to the following UN Sustainable Development Goals² (SDG) covered in the Singapore Green Plan (broadly categorised into three broad areas)

Physical Environment

- SDG 13: Climate Action
- SDG 14: Life Below Water
- SDG 15: Life on Land

Resource

- SDG 2: Zero Hunger
- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable & Clean Energy

People

- SDG 3: Good Health and Well-being
- SDG 4: Quality Education
- SDG 12: Responsible Consumption and Production



² The ALP has picked 9 relevant SDGs out of the list of 17 SDGs.

Desired Outcomes of our ALP

Kranjians who:

- **practise** sustainable living efforts at **personal level**, and **champion** sound sustainable living **initiatives** in school and at the community level
- develop knowledge and skills to work collaboratively with peers to **design innovative solutions** to address issues on sustainable living
- explore **post-secondary pathways** in sustainability-related industries³



³ Examples of sustainability-related design, renewable energy or management, food sustainal



Key Strategic Initiatives



1

A whole-of-school approach to build knowledge on drivers of sustainable living and sustainable living practices

2

Programmes to build skills and disposition to innovate solutions for sustainable living

3

Competent staff to guide students in their innovation journey

4

Build an environment that encourages innovation

5

Establish community partnerships to provide authentic setting to learn, solve and champion for sustainable living




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ANNEX 2:

Programme outline and snapshots of the 'Living in Harmony with Nature and the Planet' Seminar

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Today's Programme






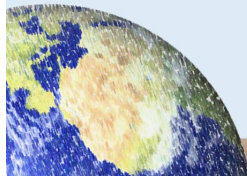
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No	Programme	Time
1	Welcome Address by emcees	1400 hr – 1410 hr
2	Sharing by Ms. Sam Shu Qin (Research Assistant, Tropical Marine Science Institute)	1410 hr – 1435 hr
3	Sharing by Mr. Zestin Soh (Senior Manager, Sungei Buloh Wetland Reserve, Conservation Division, National Parks Board)	1435 hr – 1505 hr 
4	Short Break (10 mins)	1505 hr – 1515 hr
5	Q&A	1515 hr – 1545 hr
6	Participants' Feedback	1545 hr – 1555 hr
7	Photo-taking	1555 hr – 1600 hr



*No videography or photography is allowed



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Synopsis



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Ms. Sam Shu Qin

Topic: Can We Save Singapore's Coral Reefs?

Coral reefs are regarded as one of the most diverse ecosystems. Yet, coral reefs are challenged with severe global decline due to both natural and anthropogenic threats. In Singapore, we have lost more than 60% of its coral reefs since the 1960s due to extensive coastal development. Despite active habitat restoration, research and conservation efforts to further protect our marine biodiversity, the resilience of our coral reefs are increasingly threatened by the impacts of changing climate. Are we doing enough to save Singapore's own coral reefs?




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Synopses

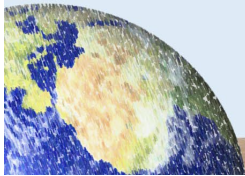


Topic: Conserving the Bees

Bees are essential as pollinators of food crops and native flora, but they are regularly misunderstood or overlooked. This talk will uncover the little known diversity of bees in Singapore, the threats that bees face globally, and how we have begun to conserve these important insects locally.



Mr. Zestin Soh



Sea level rise

Panama: Climate change could force out entire indigenous community



On front line of climate change as Maldives fights rising seas



<https://www.newscientist.com>

<https://eyeonlatinamerica.com>



[TMS] Shu Qin Sam

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Questions for Ms Sam

I would like to know what your job requires you to do, and what courses you studied e.g. poly/jc/uni that led you to your occupation? I am actually interested in marine biology as a career. Can you inform me about the courses from secondary to probably PHD that I may have to go through?

I would like to ask if your team work with Singapore Green Plan. As mentioned earlier, Singapore would always be reclaiming land and this would affect the growth of corals. Is there a way or strategy to overcome these challenges with the help of your team and Singapore Green Plan?

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Introduction

Topic: Conserving the Bees

 **Mr. Zestin Soh**
(Senior Manager, Sungei Buloh Wetland Reserve, Conservation Division, National Parks Board)

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3) There's much to discover about bees!

40 new records over the last 10 years



Photo: NUS IDL

