



# APPLIED LEARNING PROGRAMME (ALP)

## DISTINCTIVE PROGRAMME

### ABOUT

The Applied Learning Programme (ALP) is an integrated programme to prepare GESSians for their future workplace through developing work skills such as transdisciplinarity (a design thinking mindset) and encouraging novel and adaptive thinking in our students.

The programme focuses on STEM (Science, Technology, Engineering and Mathematics) and adopts a two-tier approach.

### SIGNATURE PROGRAMMES



Sec 1 students fascinated and fully immersed in their ALP lesson

#### WATER IS A PRECIOUS RESOURCE (SCIENCE)

Through a common theme, the Science department weaves the basics of design thinking and programming into their ALP where Secondary 1 GESSians embarks on a project to design a functional water filter system.

The duo-tiered approach enables GESSians who have exhibited interest and aptitude in Tier 1 to proceed to Tier 2 where they get to further refine their designs and also stand to represent the school in various competitions.



GESSians awarded the Merit Award in the Clean Water Challenge



Understanding more on the State-of-the-Art technology in vertical farming

#### REDUCING OUR CARBON FOOTPRINT (SCIENCE)

Climate Changes. Food Security. Land Scarcity.

The Secondary 2 Science ALP project is designed to equip GESSians with a global perspective on the efforts in reducing carbon footprint while rooted with a localised context.

Through altering the growth parameters and tapping on technology creatively, GESSians are to design an automated watering system and maximise plant growth for a vertical farm.



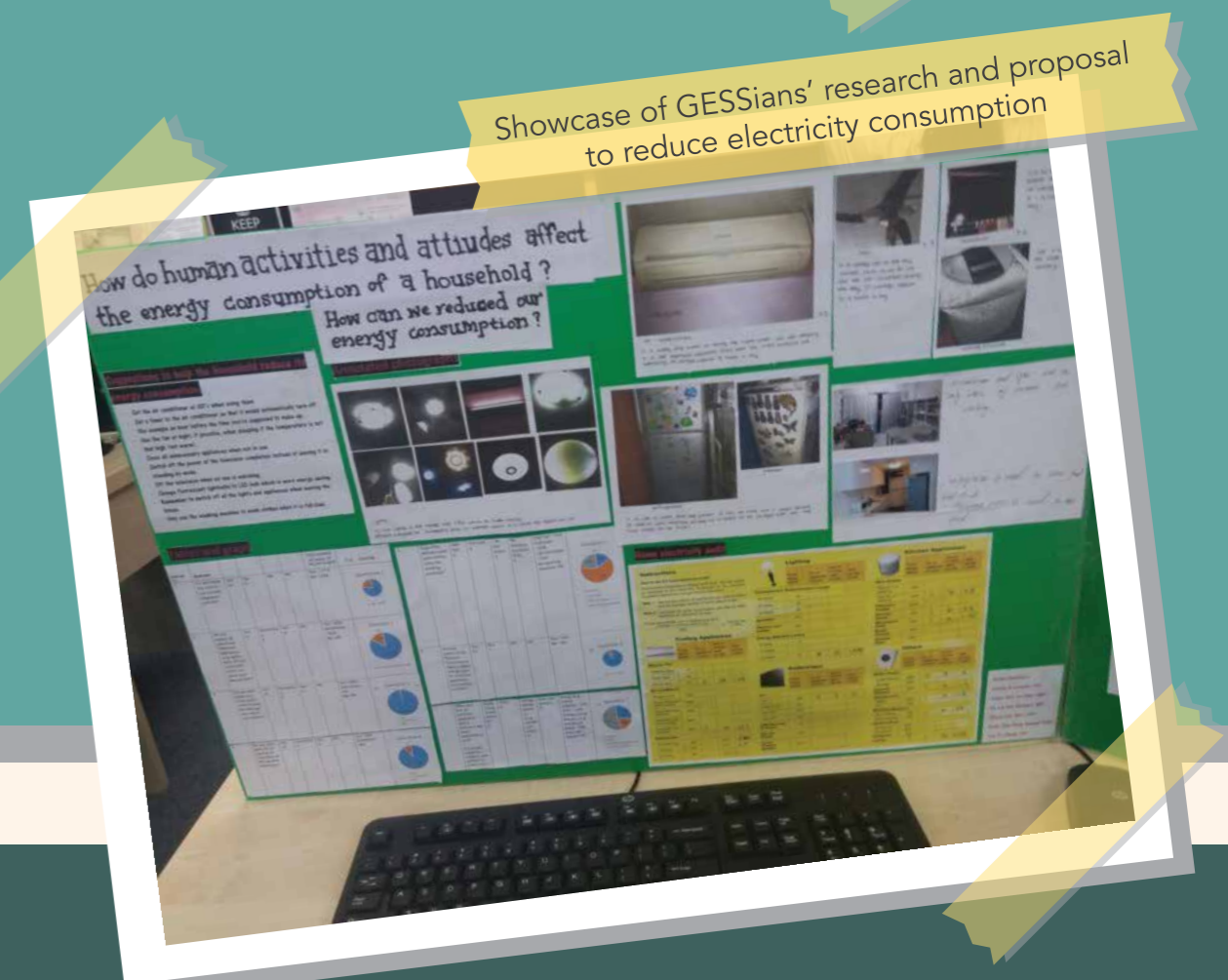
Sec 1 students designing and assembling their own robotic vehicle



An interesting Learning Journey to the Zero Energy Building with the GESSians

#### HUMAN BEHAVIOUR AND ATTITUDE AFFECTING WATER QUALITY (HUMANITIES)

Secondary 1 GESSians are introduced to the Humanities Inquiry approach as they take up Geography as a new subject. In line with the theme: Water is a Precious Resource, GESSians have to test the water quality collected from the various sources around their community and record their research and findings in their logbook. Next, they work in teams to create a poster to raise awareness of water conservation.



Showcase of GESSians' research and proposal to reduce electricity consumption



Students engaged at the interactive booths hosted by the Electricity Efficiency Centre

#### HUMAN BEHAVIOUR AND ATTITUDE AFFECTING HOUSEHOLD ELECTRICITY CONSUMPTION (HUMANITIES)

Continuing on the Humanities Inquiry approach, the Secondary 2 Humanities ALP project focuses on how to help reduce carbon footprint through the efficient use of electricity.

Insights to the subject are introduced via partnership with the Electricity Efficiency Centre and learning journey to the Zero Energy Building. Students work in teams to raise awareness of efficient use of electricity and selected students will design and implement energy-saving methods as research.