Ying Wa Girls' School - Lower Carbon Footprint in School

學校	Ying Wa Girls' School
老師	Wong Wai King
應用科目	Science and ICT
年級	S1 and S2
學習目標	● Equip students with the skills to become an innovator ● Help students to build confidence and teamwork skills ● Connect students to the problem of global warming and assert themselves to be problem solvers
運用了的電子教學設備或工具	iClass

The theme of the project is "Lowering carbon footprint in school". There are four challenges designed for the students:

● Energy and Water Efficiency

● Alternative Transportation

● Recycling and Waste Management

● Green the school

● Building Design and Performance

Winners were selected based of three criteria: 1) Creativity, 2) Originality, 3) Design.

Phase	Aim	Activity
1	Inspiration	Talks on carbon footprint Ice break (6 S1 and S2 students in a group) Calculate the CO_2 released and absorbed in school Brainstorm ways to reduce carbon footprint Allocate STEM ambassadors
	Ask and imagine	Students need to meet their group members regularly and work out the followings and report their progress to their stem ambassadors through iClass (platform provided by HKU) • Define the problem • Do background research • Choose a solution
2	Design	Students present their solutions to the chosen problem in OLE periods with the help of sketches, mock-ups, or schematics.

		Students should identify their needs including the materials, costs and know-how (eg. Write apps, 3D drawing etc) to learn.
		Submission of preliminary plan
		Workshops organized in respond to the need of students to actualize their ideas into prototypes.
		Submission of solution
3	Make	Prepare materials to make the prototypes in the two-days workshops · Make the prototype in computer rooms and IS lab on · Showcase ceremony of solutions in hall · The best 3 solutions will be given awards.
4	Improve	S1 students modify the design in order to improve the structure and function

CARBON EMISSION

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GREENHOUSE EFFECT   CLIMATIC CHANGE

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GLOBAL WARMING