

Beat the Heat 擊退酷熱

A Warming World

For the final KCFS project, Grade 6 designed, built, and tested model buildings aimed at reducing heat in a warming world. The project explored how building design can help limit reliance on air conditioning, which uses energy and adds more heat to the environment.

Heat Science

Students followed a scientific testing process to investigate how shade, insulation, and colour affect temperature, linking their results to key heat transfer concepts such as radiation, conduction, and convection. They planned fair tests, collected data, and used evidence to justify design choices and improvements.

Problem Solving

Working within a fixed budget, groups had to make trade-offs between materials, cost, and performance. This reflected real-world design decisions, where reducing cooling demand can help break the cycle of increased air-conditioning use and rising urban heat.

暖化中的世界

作為康橋未來技能的期末專題，六年級學生設計、建造並測試模型建築，目標是在日益暖化的世界中降低熱能累積。這項專題探討建築設計如何幫助減少對空調的依賴，因為空調會消耗能源，並進一步增加環境中的熱量。

熱能科學

學生依循科學測試流程，研究遮蔭、隔熱與顏色如何影響溫度，並將研究結果連結到熱傳遞的重要概念，例如輻射、傳導與對流。他們規劃公平測試、蒐集數據，並運用證據來說明設計選擇與改進的理由。

問題解決

在固定預算下，各小組必須在材料、成本與效能之間做出取捨。這反映現實世界中的設計決策：降低冷卻需求有助於打破空調使用增加與都市熱效應升高之間的惡性循環。

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1

ASK + IMAGINE
提問 + 創思

2

The students learned about heat transfer and the green house effect.
學生學習熱傳遞以及溫室效應。



3

PLAN
計畫

4

Houses were designed considering heat science and their budget.
房屋的設計考量熱能科學以及預算限制。



4

CREATE
創造

5

Groups built their models using eco materials like straw, shells and bamboo.
各組使用稻草、貝殼和竹子等環保材料來建造模型。



5

IMPROVE
改進

6

After testing their house, they shared other ways to keep it cooler during a heat wave.
在測試房屋之後，他們也分享其他能在熱浪期間讓房屋保持涼爽的方法。

