The G5 KCFS Gazette

Kang Chiao International School, Hsinchu Campus, International Department

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Cargo Drop
貨物空投

The Challenge

This term, Grade 5 students responded to an emergency scenario by designing and building containers to safely deliver fragile supplies when dropped from height.

Inspiration from Nature

Students explored key physics concepts, including gravity, air resistance, inertia, and impact, testing how layering, cushioning, and biomimicry (copying ideas from nature) could help slow the descent and protect emergency supplies.

Dropping from Height

Teams carried out repeated drop tests from different heights, recorded results, and used evidence to refine their designs, developing problem-solving skills, teamwork, and an understanding of real-world engineering trade-offs.

挑戰

本學期五年級學生接受一個緊急情境任務---設計並製作能在高空掉落時安全運送易碎物資的容器。

來自自然的靈感

學生探索重要的物理概念，包括重力、空氣阻力、慣性與衝擊力，並測試如何透過分層設計、緩衝材料，以及仿生設計（模仿自然界的構造）來減緩下降速度並保護緊急物資。

高空投放測試

各小組從不同高度進行多次掉落測試並記錄結果，根據實證資料優化設計。在這個過程中，學生發展解決問題的能力、團隊合作精神，以及對現實工程取捨的理解。

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1 ASK + IMAGINE 提問 + 創思 2

Students learned about inertia, force, motion, gravity and biomimicry.
學生學習慣性、力、運動、重力以及仿生學。

3 PLAN 計畫

Teams used these previously learned concepts to plan a strong and durable cargo drop container.
小組利用先前學到的概念來計劃堅固且耐用的貨物空投容器。

4 CREATE 創造

Teamwork made the dream work while creating a container to be dropped from a hight!
在設計要從高處空投的容器時，團隊合作讓夢想成真！

5 IMPROVE 改進

The students excitedly tested their cargo drop containers by dropping them from different heights!
學生興奮地從各種不同的高度測試他們設計的空投貨物容器！

6 PRESENT 展現

Every team presented what they learned and shared it in a Canva presentation.
每個小組都分享他們的學習成果，並以 Canva 簡報的形式進行發表。