



## Lunar Lander

### 月球登陸器

Grade 4 students took on the Lunar Lander challenge: designing and building a spacecraft that could safely protect two marshmallow astronauts during a descent to the moon. They explored how gravity and air resistance affect a lander's descent on planets with atmospheres and tested different materials to create landing gear that could soften the impact.

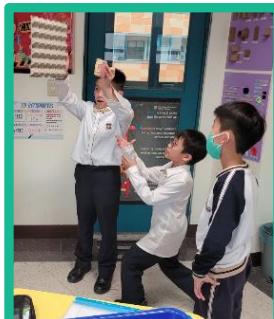
After sketching ideas and building their designs, students worked together to test and refine their landers. On testing day, the excitement grew as each lander was dropped from increasing heights to see whether it could stay upright, remain intact, and keep the marshmallow astronauts safe. Many teams achieved successful landings from the tallest drop, finishing the project with a real sense of accomplishment.

四年級學生得到創造「月球登陸器」的挑戰：設計並建造一艘太空飛行器，使其在降落到月球時能安全保護兩位棉花糖太空人。他們探究當下降在有大氣層的行星時，重力與空氣的阻力如何影響整個過程。他們也測試不同材料，製作能減緩衝擊力的登陸裝置。

在畫出設計草圖並完成作品後，學生合作進行測試與改良。測試當天，隨著每個登陸器從越來越高的高度被投放，現場氣氛越來越熱烈，大家觀察著登陸器是否能保持直立、結構完整，並保護棉花糖太空人的安全。許多小組成功從最高的高度完成登陸，為這項專題畫下充滿成就感的句點。

#### 1 ASK + IMAGINE 提問 + 創思

We investigated gravity, air resistance, and shock absorption. 我們探究重力、空氣阻力，以及減震(吸震)的原理。



#### 3 PLAN 計畫

We drew a detailed design of our idea for the best lander. 我們繪製心目中最佳登陸器的詳細設計。



#### 4 CREATE 創造

We worked collaboratively to build our landers. 我們相互合作以建造出登陸器。



#### 5 IMPROVE 改進

We helped each other test and improve our designs. 我們相互協助並修正其設計。



#### 6 PRESENT 展現

We recorded the results from testing and shared them with the class. 我們記錄測試結果並與班上同學分享。



Read More  
Newsletters

點這裡看更多期刊

CLICK HERE