

June 2023

Aqueduct 水道

Understanding Motion

During the initial inquiries, students explored how objects move. The grade fours created marble runs to explore motion. They had a lot of fun exploring gravitational, potential, and kinetic energy.

Designing Effective Waterways

Students designed and built aqueducts to help them gain clean water from the mountains. This is especially important due to recent droughts and pollution of the city rivers. Using the knowledge they gained from the marble runs about motion, the students designed their own aqueducts that could let the water run down the aqueduct as slowly as possible, without stopping.

Testing the Aqueducts

The students tested the aqueducts by running water down them to see if they were waterproof and could transport water, slowly downhill to the city. There were plenty of opportunities to reflect on their work and make improvements along the way. Students had a lot of fun and learned so much about motion, gravity, design, and construction.

瞭解運動定律

學生於專題的開始便試著探究物體如何移動，四年級學生經由彈珠運行學習運動定律。他們透過探索引力、位能和動能方面獲得很大的樂趣。

設計有效的水道

學生設計和建造水道，以幫助他們從山上獲得乾淨的水，由於最近常發生乾旱和城市河流污染。學生利用從彈珠中獲得的運動定律知識，設計自己的水道，讓水盡可能緩慢地順著水道流下，且不停頓。

測試水道

學生透過讓水順著水道往下流來測試水道，看看它們是否防水，是否可以將水慢慢向下輸送到都市。過程中除了享受樂趣外，學生有很多機會可以反思進度並進行改進，同時學到很多有關運動、重力、設計和結構的知識。

1

ASK + IMAGINE
提問 + 創思

2

We inquired about potential and kinetic energy by building marble runs.
我們透過測試彈珠運行瞭解位能與動能。



4

CREATE
創造

Teams built and tested their designs.
小組建造並測試自己的設計。



5

IMPROVE
改進

After testing, we redesigned and came up with new ideas.
測試後，我們重新設計並提供新想法。



3

PLAN
計畫

1

We brainstormed and drew designs about how to build an aqueduct.
我們腦力激盪並畫下如何建造水道的設計。



6

PRESENT
展現

We presented our knowledge gained from the project.
我們發表從專題學到的知識。

