

Invent It 發明



The Plastic Problem

Plastic is an amazing man-made material used to make all kinds of important things. Bike helmets, car airbags and many medical supplies made with plastic save lives, and plastic water bottles can bring clean drinking water to people who don't have it. The problem is that most of us use more plastic than we need to, and half of the plastic we produce is designed to be used just once and thrown away. This so-called '**single-use plastic**' is used to make all kinds of items, such as shopping bags, straws, food wrappers and various packaging. And because plastic takes years to decompose, it stays in the natural world, causing damage, for a very long time.

Biodegradable Plastic

After exploring and identifying the problem with plastic, the students set to work and came up with ways that we can reduce our use of plastic or how we can reuse certain plastic items. We looked at biodegradable plastic and learnt of inventors who shared their innovative ideas to make 'better' plastic. As a challenge, the students were then tasked to come up with 4 creative and innovative ways to re-use or recycle a plastic bottle. After drawing their ideas and designs, they applied all their creativity and made beautiful snow globes from recycled plastic bottles.

塑膠問題

塑膠是一種令人驚奇的人造材料，可用來製造各種重要的東西。自行車安全帽、汽車安全氣囊以及許多塑膠製成的醫療用品可以拯救生命，寶特瓶能給沒水喝的人帶來乾淨的飲用水。問題是，大多數人使用的塑膠比我們需要的多，甚至我們生產的塑膠有一半被設計成一次性使用並丟棄。這種「一次性塑膠」被用於各種物品，像是購物袋、吸管、食物包裝紙以及各種袋子。而因為塑膠需要花上數年才能分解，它會在自然界中停留很長時間，造成環境破壞。

可生物分解塑膠

在探索和發現塑膠的問題後，學生們開始動工，想出減少塑膠的使用或如何重複使用某些塑膠製品。我們研究可生物分解的塑膠，以及學習發明家製造「更好的」塑膠的創新想法。學生的任務是要提出4個創新的方法來重複利用或回收寶特瓶。畫完設計圖後，學生們發揮創意，用寶特瓶製作漂亮的水晶球。

1

ASK + IMAGINE
提問 + 創思

2

We examined the benefits and drawbacks of using plastic.
我們思考使用塑膠的優缺點。



3

PLAN
計畫

Through careful planning, we came up with many interesting ways to recycle plastic bottles.
經過詳細的計畫，我們想到許多有趣的方法重複利用寶特瓶。



4

CREATE
創造



The first step in creating snow globes were to create the 'winter' scene with clay, before finally closing it with the plastic bottles.

製作水晶球的第一步是用黏土打造「冬天」的場景，最後再用寶特瓶封起來。



5

IMPROVE
改進



It was very exciting to see our creations.
見到我們的創作很興奮。

