

Nasa mission to smash into asteroid launches

美國國家航空航天局開展小行星防禦任務

一艘航天器已發射升空，以測試一種可以令危險小行星偏離軌道的技術。美國國家航空航天局將該任務稱為“雙小行星重定向試驗（Double Asteroid Redirection Test）”，希望借此瞭解阻止一塊巨大的太空岩石與地球相撞有多困難。

A large **asteroid striking** our planet is an extremely rare event, but the consequences of a direct hit could be **catastrophic**. A rock measuring 150 metres across could release the energy of several nuclear bombs. Even larger objects could affect life across the world.

大型小行星撞擊地球是一件極其罕見的事情，但直接相撞的後果可能是災難性的。一塊直徑 150 米的岩石可能釋放出相當於幾枚原子彈的能量。更大的物體則可能影響全世界範圍內的生命。

So, Nasa is launching this mission to find out whether it's possible to **deflect** an asteroid heading for Earth. In late 2022, the Dart **spacecraft** will crash into a space rock called Dimorphos, allowing scientists on the ground to use **telescopes** to measure the change in its **orbit**.

因此，美國國家航空航天局開展這次任務，以查明是否有可能使飛向地球的小行星偏離其運行軌道。2022 年底，“雙小行星重定向試驗”航天器將撞向一塊叫 Dimorphos 的太空岩石，從而讓地面科學家用太空望遠鏡測量其運行軌道的變化。

The **impact** should only alter the object's speed and **path** by a small amount, but over long distances that may be enough to prevent a dangerous space rock from striking Earth, if we spot it with enough **notice**.

撞擊只會稍微改變物體的速度和路徑，但如果距離夠長的話，可能就足以防止危險的太空岩石撞向地球，前提是我們要有足夠的時間提前注意到它。

1. 詞彙表

asteroid	小行星
striking	撞擊
catastrophic	災難性的
deflect	轉向，偏離軌道
spacecraft	航天器
telescopes	太空望遠鏡
orbit	(天體) 運行軌道
impact	撞擊
path	路徑
notice	事先注意

2. 閱讀理解：請在讀完上文後，回答下列問題。（答案見下頁）

1. How often do large asteroids strike the planet?
2. What is this Nasa mission hoping to find out?

3. What is needed if scientists are to stop an asteroid hitting Earth?
4. By how much does the asteroid need to be knocked off its path?

3. 答案

1. How often do large asteroids strike the planet?

It is very unlikely – a large asteroid striking our planet is an extremely rare event.

2. What is this Nasa mission hoping to find out?

Nasa is launching this mission to find out whether it's possible to deflect an asteroid heading for Earth.

3. What is needed if scientists are to stop an asteroid hitting Earth?

Scientists need enough notice to prevent a dangerous space rock from striking Earth.

4. By how much does the asteroid need to be knocked off its path?

It only needs to alter its path by a small amount.