

## Breath of Life

### 人類的呼吸

Students get to pretend that they are astronauts and they have to design a spirometer to measure the volume of air that they breathe and calculate how much air they need to transport with them on a two-day journey to space.

學生們模擬自己是太空人，並設計一個肺量計來測量呼吸的空氣量，計算在兩天的太空旅程中需要多少空氣。



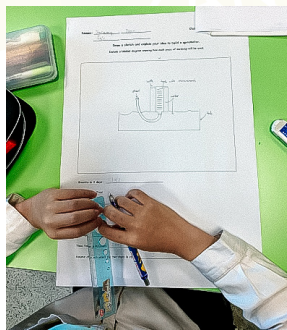
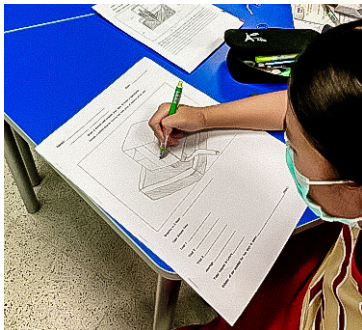
**Observing your Pulse:** This activity introduced students to the concept that the respiratory and circulatory systems work together to bring oxygen to the body's cells.

觀察脈搏：老師在活動中，向學生介紹呼吸系統和循環系統共同為人體細胞輸送氧氣的概念。



Students calculating how many breaths they take at rest and following an activity.

學生計算他們在休息時及活動後的呼吸次數。



Students designing their spirometer according to the material provided and considering the design constraints.

學生根據提供的材料設計肺量計並考慮其設計限制。



Next the students will have the opportunity to test their prototypes and see if they need to make any adjustments before calculating the volume of air required for their journey.

接下來，學生們將測試他們的設計原型，並觀察是否需要調整，接著計算他們旅程所需的空氣量。