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# Weather Instruments

氣象儀

## Meteorology

Meteorology involves studying the Earth's atmosphere and analyzing temperature and moisture fluctuations that lead to diverse weather conditions. Key areas of focus include precipitation, atmospheric pressure, and wind patterns. Given the significant shifts in our climate, meteorology has become a highly desirable STEM career. Introducing grade 3 students to weather challenges serves as an excellent opportunity to enhance their problem-solving skills.

### **Creating Instruments**

Students were given a practical scenario that tasked them with gathering and reporting data from weather instruments to predict the weather like meteorologists. To succeed in this endeavor, they needed to grasp the fundamentals of weather and forecasting. Each class was responsible for constructing an anemometer, barometer, wind vane, and rain gauge.

The primary educational goal was to effectively collect and interpret data from these instruments, presenting it graphically. This project provided students with a valuable opportunity to explore, collaborate, and test their instruments, stepping into the role of meteorologists.

### 氣象學

氣象學涉及研究地球大氣,以及分析導致多樣天氣條件的溫度和濕度波動,主要關注面向包括降水、大氣壓力和風向。鑒於氣候的重大變化,氣象學已成為一個極具吸引力的STEM職業。而向三年級學生引進天氣相關的挑戰是一個提升他們如何解決問題的好機會。

#### 建立儀器

學生們面臨一個實際的場景,他們必須收集和報告氣象儀器的數據,並 像氣象學家一樣預測天氣。為了成功實現這一目標,他們需要掌握天氣和預報的 基本原則。每班都必須製作風速計、氣壓計、風向標和兩量計。

學生主要學習目標為有效地收集信息和理解儀器上的數據,並在圖表上 呈現。此次專題給予學生探索、分享和合作的機會,並化身為氣象學家對氣象儀 進行測試。



ASK + IMAGINE 提問 + 創思



We learned about meteorologists and the important task they have to measure and forecast the weather. 我們了解氣象學家以及他們測量和預報天氣的重要任務。



PLAN 計畫









We planned out our weather station and how we were going to use the different materials. 我們規劃天氣站以及如何使用不同的材料。



CREATE 創造



We managed to complete all four instruments the wind vane, anemometer, rain gauge and barometer. 我們設法完成所有四種儀器:風向儀、風速計、雨量計和氣壓計。





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IMPROVE 改進



We tested our instruments outside to collect some data for our weather report. 我們在室外測試儀器·並為天氣預報收集一些數據。



