




自然領域教學單元案例

領域	自然科學領域		設計者	陳美卿、林雨慶、林怡伶
實施年級	六年級		教學時間	共三節課
單元名稱	第一單元活動 3 認識颱風		教材來源	南一版
教學內容				
第一節	了解颱風對生活帶來的影響並學習防颱準備。			
第二、三節	認識颱風的氣象符號、移動路徑並能記錄它的發展過程。			
設計依據				
學習重點 Learning focus	學習內容 Learning content	INd-III-7天氣圖上用高、低氣壓、鋒面、颱風等符號來表示天氣現象，並認識其天氣變化。	核心素養 Essential literacy	自-E-A2 能運用好奇心及想像能力，從觀察、閱讀、思考所得的資訊或數據中，提出適合科學探究的問題或解釋資料，並能依據已知的科學知識、科學概念及探索科學的方法去想像可能發生的事情，以及理解科學事實會有不同的論點、證據或解釋方式。
	學習表現 Learning behavior	ah-III-1 利用科學知識理解日常生活觀察到的現象。		
跨域連結	英文領域			
學習目標 Learning objectives	<p>By the end of the course, students will be able to</p> <p>3-1 能針對颱風災害，學習進行防颱的準備工作</p> <p style="padding-left: 40px;">Know and do the preparing work for preventing typhoon's damage</p> <p style="padding-left: 40px;">能運用所學得知颱風消息的方法</p> <p style="padding-left: 40px;">Use the ways Ss learn to get knowing about typhoon's news</p> <p>3-2 能看懂地面天氣圖並解釋颱風動態</p> <p style="padding-left: 40px;">Read surface weather chart and explain typhoon's newest situation</p>			
教學設備 / 資源 Teaching aids/ sources	<p>Video[Hurricane] (0:00~1:40)</p> <p>https://www.youtube.com/watch?v=J2_Bk4dVS0</p> <p>How to Name a Typhoon</p> <p>https://www.hopenglish.com/how-to-name-a-typhoon?ref=search</p>			
語言學習目標	Language of learning			
	電線桿(electric pole)、淹水(flood)、土石流(mudslide)、水庫(reservoir)、開墾山坡地(hillside)、疏通水溝(dredge sewer/ gutter)、疏散(evacuate)、熱帶氣旋(tropical cyclone)、颱風眼(typhoon eye)、逆時針(anticlockwise)、			
	Language for learning			
	<ol style="list-style-type: none"> The typhoon is developed by Tropical Depression. We should prepare _____ before a typhoon comes. (手電筒 flashlight, 膠帶 tapes, 食物 food, 民生用品 daily commodities/ necessities...) 			

<p>Ss know how to get the information of typhoon</p>	<p>◇ 可以透過哪些方式知道颱風來襲的相關報導和最新的颱風動態? What ways can we know about the related reports and the newest situation of typhoon?</p> <p>撥打 166/167 語音專線、電視、手機、電腦、收音機、聽廣播、看報紙、上網查詢</p> <p>Calling 166 or 167 on the phone, TVs, cellphones, computers, radios, newspapers, surfing on the internet, etc.</p> <p style="text-align: center;">【 Explain 解釋】</p> <p>◇ [Hurricane] (0:00~1:40) https://www.youtube.com/watch?v=J2_Bk4dVS0</p>  <p>◇ Typhoon tips: What to do before, during and after https://www.japantimes.co.jp/japan-disaster-information/typhoon-preparation/</p> 	<p>5'</p> <p>7'</p> <p>5'</p>	<p>Ss can find out the information of typhoon by themselves</p> <p>Ss can know the typhoon's situation by reading surface weather chart</p> <p>Ss can explain the information of typhoon</p>
<p>Ss know how to read surface weather chart</p>	<p style="text-align: center;">【 Evaluate 評量】</p> <p>◇ Work book p.9</p> <p>3-2 颱風 Typhoon</p> <p style="text-align: center;">【 Explore 探索】</p>	<p>10'</p>	
<p>Ss know the basic informatio</p>	<p>◇ 在地面天氣圖上，颱風的位置在哪裡? 地面天氣圖上等壓線分布很密集的地方就是颱風 On surface weather chart, where is the location of typhoon?</p>	<p>10'</p>	

<p>n of typhoon</p> <p>Ss know the basic information of typhoon</p>	<p>On surface weather chart, typhoon is at the location where the isobars are dense.</p> <p>✧ 衛星雲圖上，颱風的特徵是什麼？ On satellite cloud image, what features does typhoon have?</p> <p style="text-align: center;">【 Explain 解釋 】</p> <p>✧ 颱風是一種劇烈的熱帶氣旋，由熱帶海洋上的低氣壓發展而成。颱風是逆時針方向旋轉 Typhoon is a kind of tropical cyclone, and it is developed by the low pressure on the tropical ocean. Typhoon spins anticlockwise.</p> <p>✧ 藉由颱風路徑圖能知道颱風的強度變化 By typhoon track chart, we can know typhoon's strength changes.</p> <p>✧ 在衛星雲圖上，颱風是呈螺旋狀的濃密雲系。 On satellite cloud image, typhoon is a thick spiral cloud system.</p> <p>✧ 中間無雲的地方就是颱風眼，颱風眼的四周風雨最強，通常颱風強度越強，颱風眼越清楚</p> <p>Typhoon eye is the middle place where doesn't have clouds, and the areas around the typhoon eye have the strongest wind and rain. Usually, the more a typhoon is stronger, the clearer typhoon eye it has.</p> <p style="text-align: center;">【 Evaluate 評量 】</p> <p>✧ What have you learned in this lesson? ✧ Please write down three important points.</p> <p style="text-align: center;">【 Explore 探索 】</p> <p>✧ How to Name a Typhoon https://www.hopenglish.com/how-to-name-a-typhoon?ref=search</p> <div style="text-align: center;">  </div>	<p>20'</p> <p>10'</p> <p>25'</p>	<p>Ss know What symbol is used to represent the typhoon center</p> <p>Ss know ² How to Name a Typhoon</p>
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	<p>◇ 地面天氣圖上颱風中心用什麼符號代表? What symbol is used to represent the typhoon center on the ground weather chart?</p> <p>◇ 我們可以在颱風警報發布概況表上得到哪些資訊呢? What information can we get on the typhoon warning release summary sheet?</p> <p style="text-align: center;">【 Evaluate 評量】</p> <p>◇ Work book p.10-11</p> <p>◇ What have you learned in this lesson?</p> <p>◇ Please write down your notes.</p>	15'	Ss can ² complete assessment
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