## 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		
			教學内				
	<u>一節</u>	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			它的發展過程。		
		INd-Ⅲ-7天氣圖上用	設計係	X 1家 			
學習 重點 Learning	學習 內容 Learning content						
		高、低氣壓、鋒面、		自-E-A2 f	能運用好奇心及想像能力,從觀察、		
		颱風等符號來表示	核心	閱讀、思	<b>老</b> 所得的資訊或數據中,提出適合		
		天氣現象, 並認識其	素養	科學探究	   科學探究的問題或解釋資料,並能依據已知		
		天氣變化。	Essential	的私學知	的科學知識、科學概念及探索科學的方法去		
focus	學習	ah-Ⅲ-1					
rocus	表現 Learning behavior	利用科學知識理解	literacy	想像可能	想像可能發生的事情,以及理解科學事實會		
		日常生活觀察到的		有不同的	]論點、證據或解釋方式。		
		現象。					
跨域連結		英文領域		1			
		By the end of the course, students will be able to					
		3-1 能針對颱風災害,學習進行防颱的準備工作					
學習	3目標	Know and do the preparing work for precenting typhoon's damage					
上earning		能運用所學得得知颱風消息的方法					
objectives		Use the ways Ss learn to get knowing about typhoon's news					
		3-2 能看懂地面天氣圖並解釋颱風動態					
		Read surface weather chart and explain typhoon's newst situation					
		Video[Hurricane] (0:00~1:40)					
	備/資源	https://www.youtube.com/watch?v=J2Bk4dVS0					
	ing aids/	How to Name a Typhoen					
sources		How to Name a Typhoon https://www.hopenglish.com/how-to-name-a-typhoon?ref=search					
		Language of learning					
		電線桿(electric pole)、淹水(flood)、土石流(mudslide)、水庫(reservoir)、開墾					
語言學習目標		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 <i>for</i> learning					
		1. The typhoon is developed by Tropical Depression.					
		2. We should prepare before a typhoon comes.					
		(手電筒 flashlight, 膠帶 tapes, 食物 food, 民生用品 daily commodities/					
		necessities)					

	教學活動設計					
Teaching activities design						
教學目標	主要問題與引導	時間	評量重點			
Teaching	Main questions and guides	time	Evaluation			
objectives			points			
	3-1 颱風來了 Typhoon is coming					
	【Engage 參與】					
Ss understand	♦ Which typhoon was the most impressive to you?	3'	Ss can think			
what		3	and discuss			
damages	What influences?		what			
could a			damages			
typhoon	【 Explore 探索 】		can a			
make	Explore Dr. A.		typhhon affect our			
	人 殿园 本龍可能会选出什麽巛 宝鸡牡牛活方哪此影鄉?	10'	daliy lives			
	◆ 颱風來襲可能會造成什麼災害?對生活有哪些影響?		daily lives			
	What damages could typhoon cause? What influences does typhoon make to affect our lives?					
	does typhoon make to direct our lives.					
	(1)水災、土石流、海水倒灌、停電、停水、妨礙交通					
	<u>風</u> 會吹倒許多東西:路樹、電線桿、招牌					
	大雨會使河水暴漲、沖垮橋梁、沖垮路基、沖刷山坡地造					
	成土石流					
	<u>巨浪</u> 會使海水倒灌、淹沒沿海低地、淹沒低處住家					
	(2) <u>大雨</u> 會使水庫大量進水,暫緩缺水問題					
	<ol> <li>Flood, mudslide, seawater intrusion, power cut, water outage, obstructing traffic, etc.</li> </ol>					
	Wind would blow many things down: trees, electric					
	poles, signboards, etc.					
	Heavy rain makes river overflowing, flushing bridges,					
	roads and hillside down, causing the mudslide					
	Huge waves cause seawater intrusion, flood over coastal low areas and homes					
	(2) Heavy rain brings big amount of water into the					
	reservoir and solve the problem of water shortage.					
	<ul><li>◆ 我們平時和颱風來襲前,應該做好那些防災準備工作?</li></ul>	10'				
Ss know	What disaster prevention preparing works can we do		Ss can think			
how to prevent the	ordinarily or before the typhoon come?		and take action of			
damages	, ,,		their ways			
from	不可任意開墾山坡地、平時做好疏通水溝工作、準備防		to prevent			
typhoon	颱民生用品、危險區域應事先進行疏散		the			
	-Avoiding hillside reclamation arbitrarily		damages			
	-Dredging sewer/ gutter regularly -Preparing daily necessities for typhoon		from			
	-Preparing daily necessities for typhoon  -Dangerous areas should conduct the evacuation before		typhoon			
	typhoon coming					
	2	1				

Ss know how to get the informatio n of typhoon	<ul> <li>→ 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?</li> <li>What ways can we know about the related reports and the newest situation of typhoon?</li> <li>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</li> <li>Calling 166 or 167 on the phone, TVs, cellphones, computers, radios, newspapers, surfing on the internet, etc.</li> <li>【Explain 解釋】</li> </ul>	5'	Ss can find out the information of typhoon by themselves
	→ [Hurricane] (0:00~1:40)  https://www.youtube.com/watch?v=J2 Bk4dVS0   ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	7'	Ss can know the typhoon's situation by reading surface weather chart
Ss know how to read surface weather chart	→ Typhoon tips: What to do before, during and after <a href="https://www.japantimes.co.jp/japan-disaster-information/typhoon-preparation/">https://www.japantimes.co.jp/japan-disaster-information/typhoon-preparation/</a>	5'	explain the information of typhoon
	【Evaluate 評量】 ◇ Work book p.9  3-2 颱風 Typhoon	10'	
Ss know the basic informatio	【Explore 探索】      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?	10'	

1
Ss know
What symbol is used to represent the typhoon
Ss know <sup>2</sup>
How to
Name a Typhoon
1 7 10011
SHN

*	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? 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?		
	【 Evaluate 評量】	15'	Ss can <sup>2</sup> complete
* * *	Work book p.10-11 What have you learned in this lesson? Please write down your notes.		assessment