

附件四：

新北市113年度教師跨領域全英語授課教案設計

(參考範例-課程實施後)

設計者 / 服務學校	廖俊惟、郭向真、江蕙伶/昌平國小		
教案名稱	電流的奇妙世界	領域	英語跨(自然)領域
教學年級：國小__6__年級	課程上使用之英語比例： 70 % (使用英語比例係指教師以英語授課之時間佔總授課時間之比)		
學生人數：__25__人	教學總節數：__3__節	公開授課內容為第__2__節	
公開授課之時間： __113__年__11__月__15__日 __10__時__30__分至__11__時__10__分(第三節課)	公開授課之地點： 新北市新莊區昌平國小 601教室	公開授課之教師： 姓名：__廖俊惟__ 服務學校：__昌平國小__ 專長領域：__英語__	

核 心 素 養	總 綱	A2系統思考與解決問題 A3規劃執行與創新應變 B1符號運用與溝通表達 B2科技資訊與媒體素養
	領 綱	英-E-A2 具備理解簡易英語文訊息的能力，能運用基本邏輯思考策略提升學習效能。 英-E-B1 具備入門的聽、說、讀、寫英語文能力。在引導下，能運用所學、字詞及句型進行簡易日常溝通。 英-E-C2 積極參與課內英語文小組學習活動，培養團隊合作精神。 自-E-A3 具備透過實地操作探究活動探索科學問題的能力，並能初步根據問題特性、資源的有無等因素，規劃簡單步驟，操作適合學習階段的器材儀器、科技設備及資源，進行自然科學實驗。 自-E-B2 能了解科技及媒體的運用方式，並從學習活動、日常經驗及科技運用、自然環境、書刊及網路媒體等，察覺問題或獲得有助於探究的資訊。 自-E-C2 透過探索科學的合作學習，培養與同儕溝通表達、團隊合作及和諧相處的能力。

學習重點	學習表現	英語 1-III-6 能聽懂課堂中所學的字詞。 2-III-2 能說出課堂中所學的字詞。 5-III-5 能以正確的發音及適切的速度朗讀簡易句型的句子 自然 pc-III-2能利用簡單的口語、文字、影像分享科學發現及成果 ai-III-3參與合作學習並與同儕有良好的互動經驗，享受學習科學的樂趣。
	學習內容	英語 Ac-III-3簡易的生活用語。 Ad-III-2簡易、常用的句型結構。 自然 INe-II-8 物質可分為電的良導體和不良導體，將電池用電線或良導體接成通路，可使燈泡發光、馬達轉動。
具體學習目標		英語 Vocabulary: battery, wires, switch, circuit, light bulb, motor, conductor, insulator Sentence: Turn on/off the light bulb/motor. 自然 1.能知道電池、電燈和電線的構造與名稱。 2.能了解通路的連接方式，並知道電路中的燈泡在通路時會發光，斷路時不發光。 3.將不同物品連接在電路中，如果燈泡會發光，表示物品容易導電，如果燈泡不發光，表示物品不易導電。 4.了解容易導電的物品稱為電的導體。
與其他領域/科目/議題的連結		●人權教育 人 E3 了解每個人需求的不同，並討論與遵守團體的規則。 人 E5 欣賞、包容個別差異並尊重自己與他人的權利。
教學資源/設備需求		電腦/投影螢幕/自然活動實驗器材/學習單

各節教學活動設計

節次	教學活動流程	時間(分)	教學資源	教師語言
第一節	【引起動機】 Pre-task 1. Teacher teaches the words about conductor and insulator. 2. Teacher explains to students what conductor and insulator means. 3. Teacher shows a video of conductor and insulator to help students to understand.	5	PPT Video Flash Card Whiteboard	What do you know about electricity? What do you know about conductors and insulators?

	<p style="text-align: center;">【發展活動】</p> <p>Main-task</p> <ol style="list-style-type: none"> 1. Teacher shows some common conductors and insulators in students' life. 2. Teacher picks up certain objects like pencil, eraser, scissors, paper clip, and metal water bottles to ask students if they know they are of conductors and insulators. <p>Group activity:</p> <ol style="list-style-type: none"> 1. Students use battery and wires to exam the objects are conductors and insulators. 2. Students write the result on the worksheet. <p style="text-align: center;">【統整與總結】</p> <p>Post-task</p> <ol style="list-style-type: none"> 1. Teacher collects the worksheet. 2. Teacher review the examples of conductor and the insulator. 	<p style="text-align: center;">15</p> <p style="text-align: center;">15</p> <p style="text-align: center;">5</p>	<p style="text-align: center;">PPT Video Flash Card Whiteboard Conductors Insulators</p> <p style="text-align: center;">Batteries Battery Packs Worksheet (Appendix A)</p> <p style="text-align: center;">PPT Video Flash Card Whiteboard</p>	<p style="text-align: center;">Can anyone tell me some common conductors and insulators in life?</p> <p style="text-align: center;">Is the paper clip a conductor or insulator?</p> <p style="text-align: center;">Look at the screen, I have a sentence and you tell me it is yes or no?</p>
第二節	<p style="text-align: center;">【引起動機】</p> <p>Pre-task</p> <ol style="list-style-type: none"> 1. Greeting/ review about the previous lesson 2. Teacher review the key points from last lesson. 3. Teacher Check student's understanding of conductor and insulator using the activity on the PPT. <p style="text-align: center;">【發展活動】</p> <p>Main-task</p> <p>Group Activity:</p>	<p style="text-align: center;">5</p> <p style="text-align: center;">20</p>	<p style="text-align: center;">PPT Video Flash Card Whiteboard</p> <p style="text-align: center;">PPT Paper Board Wire</p>	<p style="text-align: center;">What do you remember about the last lesson?</p> <p style="text-align: center;">Can you tell me and conductors or insulators you've learned last time?</p> <p style="text-align: center;">Please work with your group members to make a simple circuit.</p>

	<p>1. Teacher introduces the circuit and switch.</p> <p>2. Teacher gives students materials for the activity- Electric Shock Stick.</p> <p>3. Teacher guides the students to make Shock Stick and the circuit on the Paper Board.</p> <p>4. Groups start testing the circuit.</p> <p>5. Teacher goes to each group and check if the group succeed.</p> <p style="text-align: center;">【統整與總結】</p> <p>Post-task</p> <p>1. Teacher asks questions about the Electric Shock Stick.</p> <p>2. Teacher goes over the key points of the lesson.</p>	15	<p>Batteries Battery Packs Chopsticks light bulb</p> <p>PPT Video Flash Card Whiteboard</p>	<p>Step 1... Step 2...</p> <p>Please return all the materials. Can anyone share the tips about how to make a circuit?</p>
第三節	<p style="text-align: center;">【引起動機】</p> <p>Pre-task</p> <p>1. Teacher reveiw important points from last lesson.</p> <p>2. Teacher Check student’s understanding of eletrical circuit using the activity on the screen.</p> <p style="text-align: center;">【發展活動】</p> <p>Main-task</p> <p>Practice:</p> <p>1. Students works on worksheet, which is related to the last two units about simple circuit and simple switch.</p> <p>2. Teacher goes over the worksheet with students.</p> <p>Activity:</p>	10 10 15	<p>PPT Video Flash Card Whiteboard</p> <p>Worksheet (Appendix A)</p>	<p>What do you remember about the last lesson?</p> <p>Can you tell me and conductors or insulators you’ve learned last time?</p> <p>There are six pictures on the worksheet. If you think the circuit is set up correctly, you write: will light; If not, you write: will not light.</p> <p>Try to work with your</p>

<p>3. Students will connect the simple circuit.</p> <p>4. Students will also make an electric car with motors and brushes.</p> <p>5. Teacher shows students a demo and explain the instruction how are they going to make it.</p>		<p>Batteries Battery Packs wires motors brushes</p>	<p>group members and make a brush car.</p> <p>Remember to paste the battery packs and the motor on the right place.</p>
<p style="text-align: center;">【統整與總結】</p>			
<p>Post-task</p>			
<p>1. Teacher collects back the batteries, motors, battery packs, and the brushes.</p>	5	<p>PPT Video</p>	<p>Please return all the materials.</p>
<p>2. Teacher review the key points of the lesson.</p>		<p>Flash Card Whiteboard</p>	<p>Can anyone share the tips about how to make a brush car?</p>

Worksheet

Electric Shock Stick

red black long short positive negative

The wire and the leg of LED light are (+) .

The wire and the leg of LED light are (-).