



# 雙語數位教學範例教案



語言別：

英語

教案名稱：The Journey of Water

教育議題：環境教育

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111—112年教育部雙語數位學伴營運中心計畫

# 111-112 年教育部雙語數位學伴營運中心計畫

## 雙語數位教學範例教案

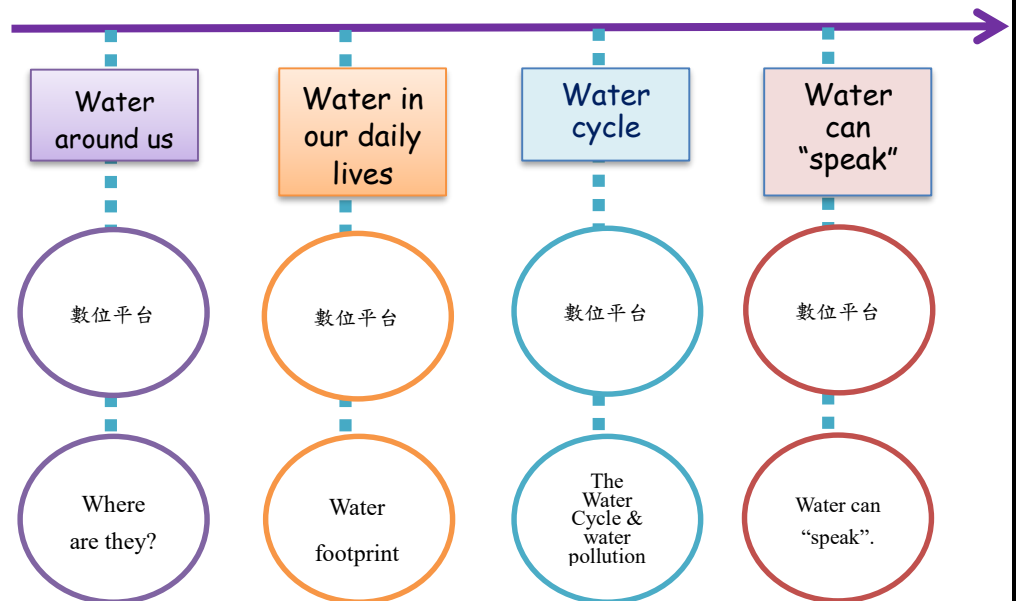
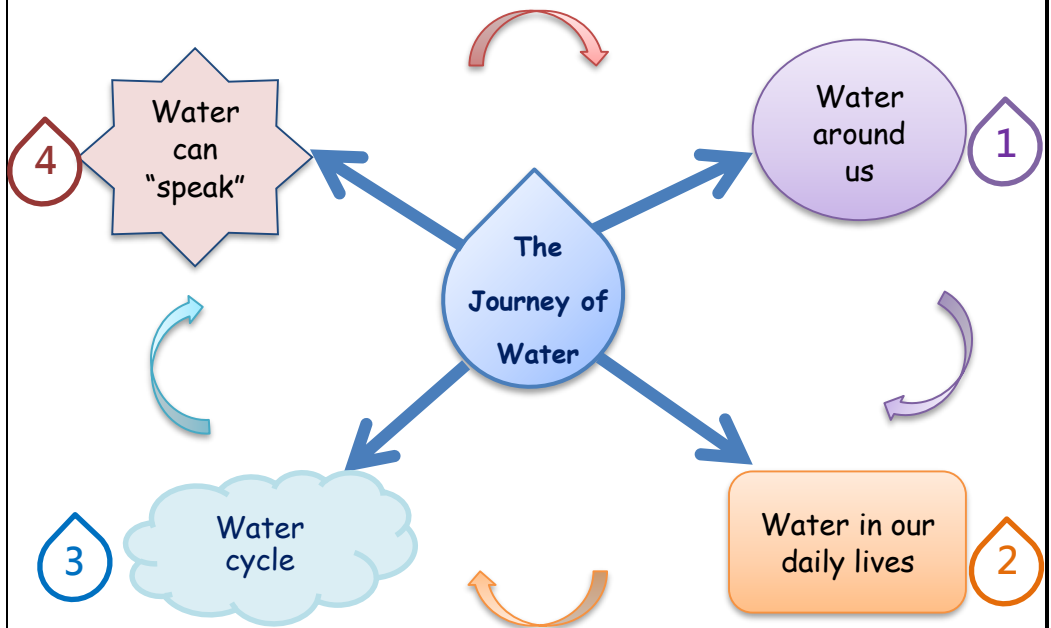
教案作者		趙崇儀
主題/單元名稱		The Journey of Water
語言別		<input type="checkbox"/> 本土語雙語 <input checked="" type="checkbox"/> 英語文雙語
年級別		6 年級
教案節數		共 4 節，180 分鐘
設計理念		<p>「水」是生命不可或缺的元素，亦是人類每天生活必需品，然而我們對於「水」的了解少之又少，且從氣候變遷與環境污染所帶來的改變與傷害，更加顯示出「水」議題的重要性。</p> <p>因此，本雙語課程中，融入「水」之環境教育議題(水從哪裡來、生活中的水)於語言學習中，並且於最後延伸至情感與科學教育(水的循環、水會說話)。讓學生在數位學習、分組討論以及任務互動的學習環境下，思考並培養出環保、惜水與尊重的觀念。</p>
核心素養	總 綱	C1 道德實踐與公民意識
	領 綱	<p>英-E-B2 具備使用各種資訊科技媒材進行自我學習的能力，以增進英語文聽說讀寫綜合應用能力及文化習俗之理解。</p> <p>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。</p> <p>自-E-C1 培養愛護自然、珍愛生命、習取資源的關懷心與行動力。</p>
議題	學習主題	環境教育
	實質內涵	<p>環 E1 參與戶外學習與自然體驗，覺知自然環境的美、平衡、與完整性。</p> <p>環 E3 了解人與自然和諧共生，進而保護重要棲地。</p>
學習重點	學習內容	<p>英/學習階段三/聽/A 語言知識：Ac-III-4 國小階段所學字詞。</p> <p>英/學習階段三/語言知識：Ac-III-2 簡易的教室用語。</p> <p>自/學習階段三/資源與永續性：INg-III-6 碳足跡與水足跡所代表環境的意涵。</p> <p>自/學習階段三/資源與永續性：INg-III-7 人類行為的改變可以減緩氣候變遷所造成的衝擊與影響。</p>
	學習表現	<p>英 1-III-9 能聽懂簡易句型的句子。</p> <p>自 po-III-1 能從學習活動、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。</p>

<p>學生先備知識</p>	<ol style="list-style-type: none"> <li>1. 知道校園裡常見的水資源。</li> <li>2. 知道生活中常見的用水有哪些。</li> <li>3. 了解關於水的簡易英語單字。</li> <li>4. 能夠進行簡單的英語對話。</li> <li>5. 知道如何進行基本的環境保護行動。</li> </ol>
<p>核心目標</p>	<ol style="list-style-type: none"> <li>1. 學生能運用所學單字、句型表達對於「水」資源習得內容。</li> <li>2. 學生能運用所學之概念，進行愛護水資源、環境之行動。</li> <li>3. 學生能夠將習得之概念延伸並轉化於生活之中。</li> <li>4. 學生能夠惜水、節省水資源，進而保護環境。</li> </ol>
<p>教學設備/資源</p>	<p>(包含數位設備、學習平台、教材教具、網站、影音資源、參考資料等)</p> <p>Microsoft Teams / Google Meet Jamboard Canva, Power Point Classroom screen</p> <p>因材網:(須教師、學生使用教育雲或 Open ID 自行登入，教師才能從教師帳號之後台知道小朋友之學習狀況。) <a href="https://adl.edu.tw/HomePage/home/">https://adl.edu.tw/HomePage/home/</a></p> <p>小水滴，祝你旅行愉快！ ( Bon voyage, petite goutte ) <a href="https://children.moc.gov.tw/book/219434">https://children.moc.gov.tw/book/219434</a></p> <p>Wordwall practicing: Bodies of water <a href="https://wordwall.net/resource/17634635/bodies-of-water-memo">https://wordwall.net/resource/17634635/bodies-of-water-memo</a>.</p> <p>Blooket: (1) 教師使用請登入 google <a href="https://dashboard.blooket.com/set/635c8fd746d171b08c9c87ef">https://dashboard.blooket.com/set/635c8fd746d171b08c9c87ef</a> (2) 學生使用請輸入教師給之 pin 碼 <a href="https://play.blooket.com/play">https://play.blooket.com/play</a></p> <p>NASA: The Water Cycle: <a href="https://www.youtube.com/watch?v=0_c0ZzZfC8c">https://www.youtube.com/watch?v=0_c0ZzZfC8c</a></p> <p>The Water Cycle Song: <a href="https://www.youtube.com/watch?v=Oq8iCsV4woE&amp;t=60s">https://www.youtube.com/watch?v=Oq8iCsV4woE&amp;t=60s</a></p> <p>What Causes Water Pollution? <a href="https://www.youtube.com/watch?v=MEb7nnMLcaA&amp;t=179s">https://www.youtube.com/watch?v=MEb7nnMLcaA&amp;t=179s</a></p> <p>來自水的訊息，有感知的水(水會說話)PPT: <a href="https://eeclass.ntsue.edu.tw/sysdata/doc/e/ebe83e1b072190d2/pdf.pdf">https://eeclass.ntsue.edu.tw/sysdata/doc/e/ebe83e1b072190d2/pdf.pdf</a></p> <p>● 圖片來源: 生活中的水 <a href="https://reurl.cc/VRaabb">https://reurl.cc/VRaabb</a> 水循環 <a href="https://reurl.cc/DX15ee">https://reurl.cc/DX15ee</a> 回收 <a href="https://reurl.cc/OEbW2A">https://reurl.cc/OEbW2A</a></p>

教學活動設計

- 1 概念短片 (C) 水資源的範圍與形成 (L) 英語字詞 bodies of water
- 2 分類與歸納：(C) 認識水資源運用與生活實例 (L) 英文字詞與句型：
  - (1) cooking, drinking, washing, cleaning
  - (2) We use water for \_\_\_\_\_.
- 3 延伸與分組任務：(C) 了解水循環與環境影響的關聯 (L) 應用所學英文結合數位平台進行表達
- 4 運用與分享：(C) 表達對他人作品的欣賞 (L) 使用簡易英文發表作品

節次規劃說明



第一節

學習目標

- 1-1 能聽了解並找到自己周遭的水資源。  
 1-2 能辨別水域環境的不同。(bodies of water : river, stream, spring, ocean, lake, pond)

教學活動內容及實施方式

時間

對應目標之評量

● 學生課前自學：（課前-1）

1. 學生觀看因材網影片：[3-IV-02-09-12 Bodies of Water](https://reurl.cc/06XEeY)  
 (<https://reurl.cc/06XEeY>)  
 (若無帳號登入、使用無須登入看影片，則無法將資料傳入教師後台亦無法做練習題)



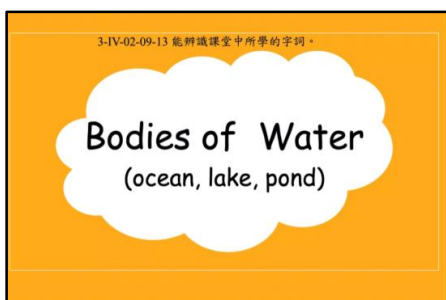
觀看完影片後，完成 3-IV-02-09-12 之練習題。

10'

1-1 、1-2 因材網練習題。

● 學生課前自學：（課前-2）

2. 學生觀看因材網影片：[3-IV-02-09-13 Bodies of Water](https://reurl.cc/DX3mQd)  
 (<https://reurl.cc/DX3mQd>)  
 (若無帳號登入、使用無須登入看影片，則無法將資料傳入教師後台亦無法做練習題)



觀看完影片後，完成 3-IV-02-09-13 之練習題。

10'

1-1 、1-2 因材網練習題。

I . Warm up

1. Greeting with students. (English)  
 2. Show the video: 小水滴，祝你旅行愉快！（ Bon voyage, petite goutte ）



<https://children.moc.gov.tw/book/219434>

5'

1-1 、1-2 video

(影片中會提及小水滴會在 river, stream, spring, ocean, lake 和 pond 出現。教師本節課以此為先引導之方向，導入生活周遭的水資源。)

## II. Presentation

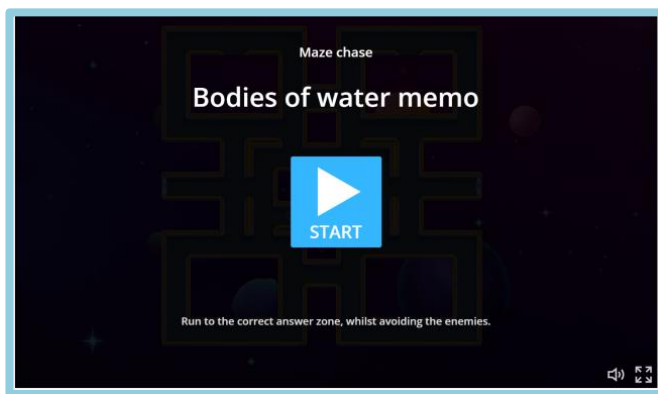
### A. Activity A: wordwall practicing

1. The teacher shows the questions from 因材網 on the touchscreen, and checks the answers from students.(3-IV-02-09-12、3-IV-02-09-13)



(PS. 使用因材網須教師、學生都使用教育雲帳號或是 Open ID 登入後進入頁面，學生才能看教師指定之任務影片並作答 (若無帳號登入，無法將資料傳入教師後台，只能單純觀看影片)，教師也才能在教師權限的後台中看到學生的影片觀看與答題情況。)

2. The teacher uses wordwall to review the words. (river, stream, spring, ocean, lake, pond)



[https://wordwall.net/resource/17634635/bodies-of-water-memo.](https://wordwall.net/resource/17634635/bodies-of-water-memo)

### B. Activity B: Where are they?

1. Students use Google Earth Engine to find their school.

10'

1-1、1-2  
因材網

1-1、1-2  
wordwall

25'

- The teacher asks students to use the words they learned (bodies of water) and find out where they (bodies of water) are near the school.

EX:

T: Use the Google Earth Engine to find our school.

Ss: Found it!

T: Is there any “pond” in our school?

Ss: Yes, there is a small pond in our school.

T: Is there a river or lake near our school?

Ss: Yes ! A river!

- Make a “Water Map” of your school

(學生根據與教師討論結果，使用 Jamboard，搭配 google earth，簡易繪製出校園「水」地圖，並標上各水域名稱。)



- Each student (or each group) shows the “Water Map” and gives a small presentation.

### III. Wrap up

- The teacher reviews today’s lesson. (including words and the topic)
- Exit ticket.

(The end of the first class)

1-1 、1-2  
jamboard

5’

1-1 、1-2  
oral assessment

第二節

學習目標

- 2-1 能認識和辨識日常生活中水資源的使用之相關單字與句型：  
 (1) cooking, drinking, washing, cleaning  
 (2) We use water for \_\_\_\_\_ .  
 2-2 能知道節省使用水資源的重要性。

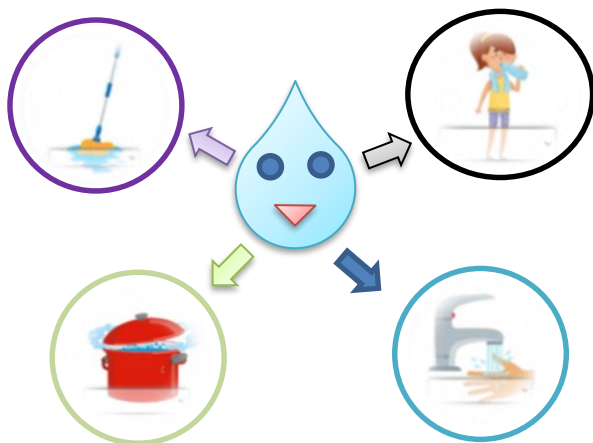
教學活動內容及實施方式

時間

對應目標之評量

**I. Warm up**

1. Greeting with students. (English)
2. Show the pictures below to the students.



3. The teacher asks students to guess the meaning of the pictures.

5'

2-1 oral assessment

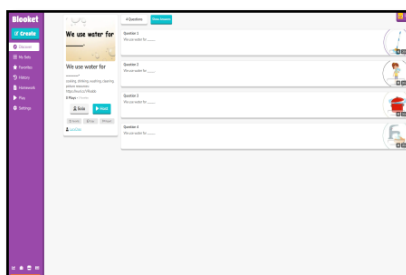
**II. Presentation**

**A. Activity A: Blooket**

1. The students conclude the contents from warm-up discussion.
2. The teacher introduces the concept and importance about water in our daily lives
3. The teacher introduces the words (cooking, drinking, and washing, cleaning) and the sentence pattern (We use water for \_\_\_\_\_.)
4. The teacher uses Blooket to practice the words and sentence pattern. (<https://dashboard.blooket.com/set/635c8fd746d171b08c9c87ef>)

15'

2-1 、2-2  
Blooket



(Blooket 使用教學影片：

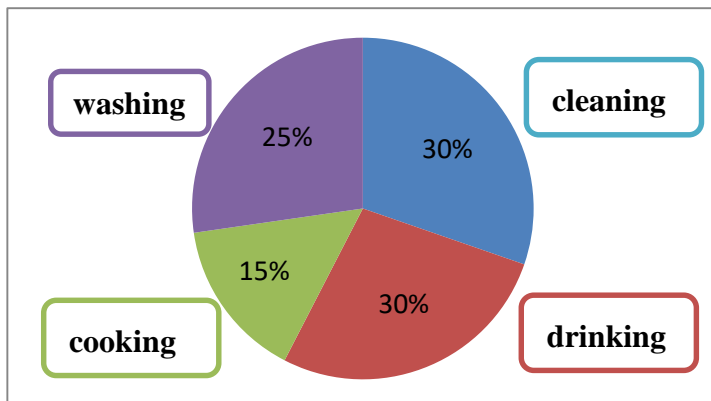
<https://www.youtube.com/watch?v=jpCUnexxYjM> )



**B. Activity B: Water footprint**

20'

1. The teacher discusses about how we use water in our daily life (water footprint) with students.
2. The teacher draws a simple pie chart according to the discussion.  
\* In this part, the teacher guides students to learn the words and sentence pattern.

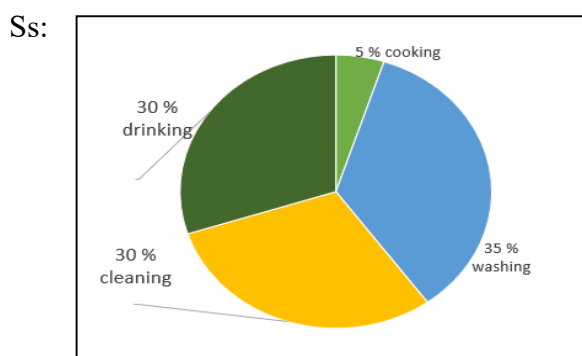


Words: washing, cleaning, cooking, drinking

Sentence pattern: We can use water for \_\_\_\_\_.

3. The teacher asks students to draw their own pie chart which based on their water footprint by using Power Point. (Use Power Point to make pie chart)
4. Pie chart (water footprint) presentation.

T: Now, we need some volunteers to show their pie chart and talk about their water footprint.



We use water for drinking. It's 30%.

We use water for cleaning. It's 30%.

We use water for washing. It's 35%.

We use water for cooking. It's 5%.

2-1 、 2-2  
Power Point,  
Oral  
assessment

2-1 、 2-2  
Oral  
assessment

<p>5. The teacher discusses about how to save water with students.</p> <p>EX:</p> <p>T: According to your own pie chart, what ways do you think we can save water?</p> <p>Ss: Use less water to wash hands?</p> <p>Ss: Take shorter showers.</p> <p><b>III. Wrap up</b></p> <p>1. The teacher reviews today's lesson. (including words and the topic)</p> <p>2. Exit ticket.</p> <p style="text-align: center;"><b>(The end of the second class)</b></p>	5'	2-1 、 2-2 Oral assessment
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第三節

學習目標

- 3-1 了解水的循環。
- 3-2 通過理解水的循環，知道並了解環境汙染對於水資源的危害。
- 3-3 學習愛護環境的方式 reduce, reuse, recycle

教學活動內容及實施方式

時間

對應目標之評量

I. Warm up

1. Greeting with students. (English)
2. Show the video: NASA-The Water Cycle



[https://www.youtube.com/watch?v=0\\_c0ZzZfC8c](https://www.youtube.com/watch?v=0_c0ZzZfC8c)

3. Show the video: The Water Cycle



<https://www.youtube.com/watch?v=Oq8iCsV4woE&t=60s>

4. The teacher asks students to compare these two videos and find out the similar parts of them.

T: There are similar parts in these two videos. Do you notice that?

Ss: All about water?

Ss: 水在循環，...不知道怎麼說英語。

T: Good job! Their topics are about The Water Cycle.

10'

3-1 video

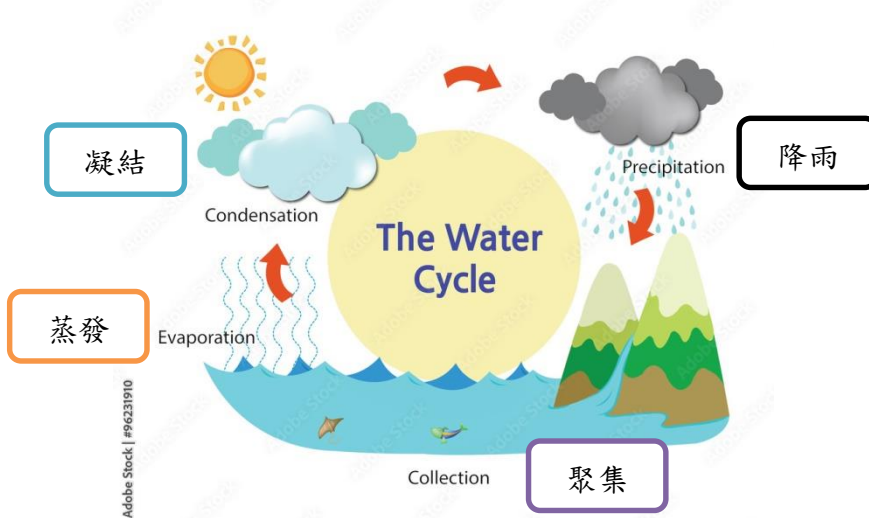
3-1 video

3-1 oral assessment

## II. Presentation

### A. Activity A: Water Cycle

1. The teacher introduces the concept of Water Cycle to students.
2. The teacher uses Jamboard to make/draw pictures for students to understand the concept of Water Cycle clearly.



<https://reurl.cc/DX15ee>

2. Teacher & Students Discussion: The Water Cycle & Water Pollutions.

### B. Activity B: Pollution

1. Show the video : What Causes Water Pollution?

<https://www.youtube.com/watch?v=MEb7nnMLcaA&t=179s>



15'

3-1、3-2  
jamboard

18'

3-1、3-2、3-3  
Video,  
Jamboard

2. According to the video, the teacher discusses the effects of water pollution to human-beings, animals and plants with students.

T: What are the effects?

Ss: 中毒?

Ss: Animals will die.



3-1、3-2、3-3  
oral  
assessment,  
video

3. The teacher asks to figure out how to protect water resource.

T: How to protect water? How to save water?

Ss: Take shorter showers.

Ss: Turn off the running tap.

Ss: Pick up trash.

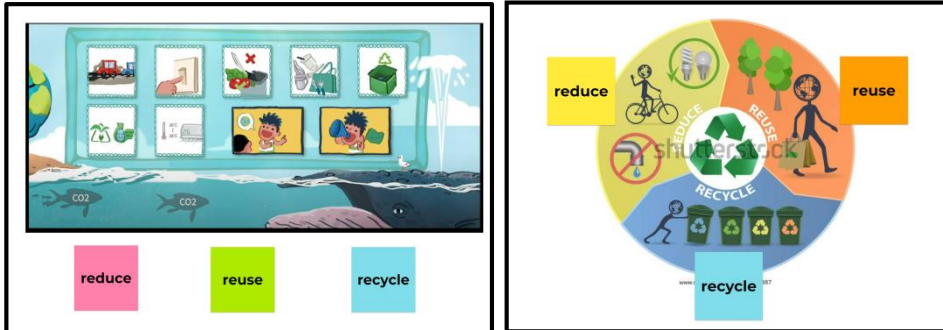


3-1、3-2、3-3  
oral  
assessment,  
video

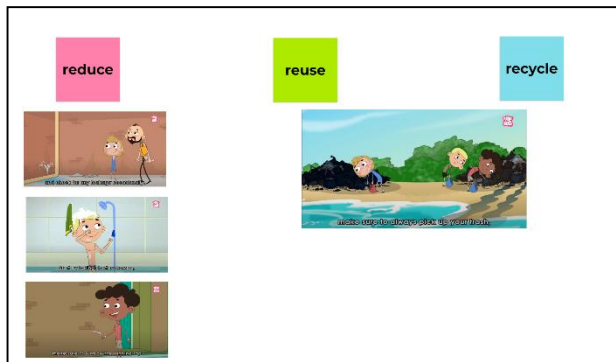
4. The teacher concludes the ways of protecting water resource to three concepts: reduce, reuse, and recycle.

5. The teacher uses Jamboard to introduce/practice reduce, reuse, and recycle.

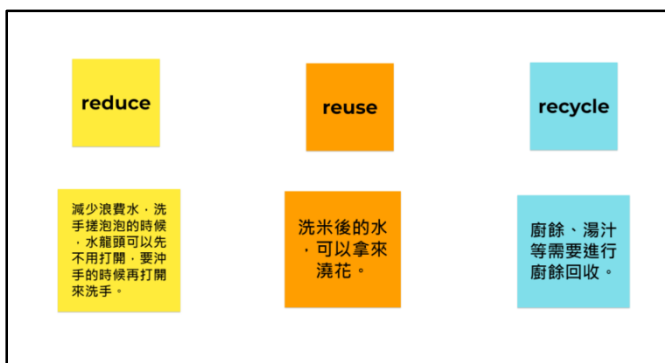
(<https://jamboard.google.com/d/1M0tLnZtn4IxyNnWRbZnBHif0iaooB6t-vAyMJXIOlrs/edit?usp=sharing>)



<https://reurl.cc/OEbW2A>



6. The teacher asks students to think what we can do in daily life to protect/save water resource and type them on the stickers and put them into three concepts ( reduce, reuse, and recycle).



### III. Wrap up

1. The teacher reviews today's lesson. (including words and the topic)
2. Exit ticket.

(The end of the third class)

3-1、3-2、3-3  
Jamboard

3-1、3-2、3-3  
Jamboard

2'

3-1、3-2、3-3  
Oral  
assessment

第四節

學習目標

- 4-1 能了解水資源的重要性與愛護環境的重要。
- 4-2 能延伸了解與探討「水」和「人」之間的關聯。
- 4-3 能使用數位資源製作「水資源」創作，並宣導水資源之重要性。

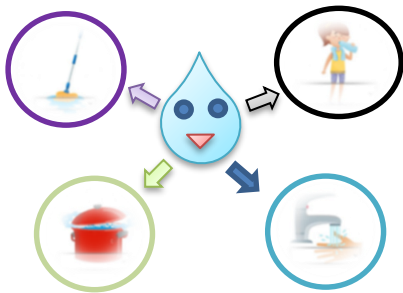
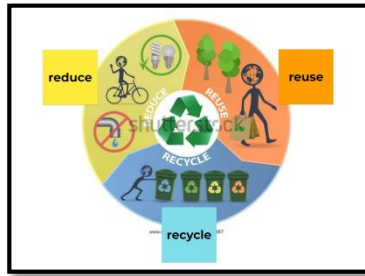
教學活動內容及實施方式

時間

對應目標之評量

I. Warm up

1. Greeting with students. (English)
2. The teacher reviews the last three lesson's topic.



II. Presentation

A. Activity A: Water can “speak”.

1. 教師介紹水資源與環境的關係後，進而延伸至「水」和「人」之間的關聯科學研究主題：水會說話。



<https://ceclass.nts.edu.tw/sysdata/doc/e/ebe83e1b072190d2/pdf.pdf>

10'

4-1 、4-2  
oral assessment

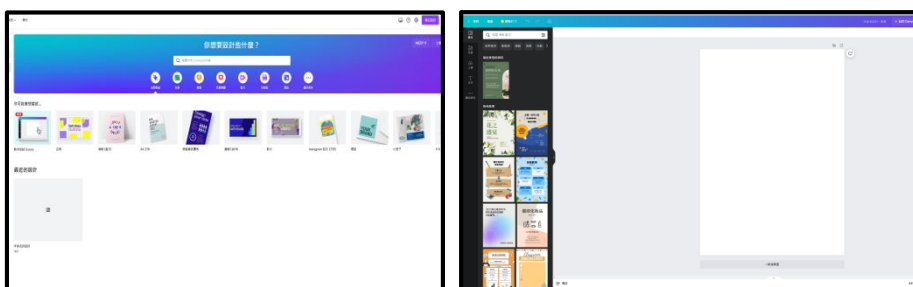
2. 教師與學生一起討論「水」、「人」以及「言語」、「破壞」所造成的影響。

**B. Activity B: What water wants to say! (Canva 海報製作)**

1. The teacher divides students into groups ( one student can be a group, too).
2. The teacher demonstrates how to make a poster about what water wants to say by using Canva.

\* The poster should include:

- (1) Introduction to bodies of water
- (2) How to protect and save water resources.  
(We use water for \_\_\_\_\_.)
- (3) If you were water, what would you want to say to the humans?



3. Students use Canva to make a poster.



30'

4-1 、 4-2 、 4-3  
Canva

4-1 、 4-2 、 4-3  
Oral  
assessment





4. Presentation Time: Each group or each student has to give a short presentation by showing their poster.
5. Peer Evaluation (google form)

The screenshot shows the top part of a Google Form titled "Peer Evaluation". It includes a sub-header "評分其他組的作品" and a link "登入 Google 即可儲存進度。瞭解詳情". Below this are three input sections: "我要評分Group \_\_\_\_\_ (我要評分幾組)", "Group \_\_\_\_\_ (我是第幾組)", and "Name: \_\_\_\_\_ (我的名字)". Each section has a label "您的回答" below it.

The screenshot shows three questions from the Google Form, each with three radio button options: "Perfect. (100%)", "Great. (90%)", and "Good. (80%)".

1. "有做到"水資源的介紹。(bodies of water)
2. "有做到"對於省水與愛護環境的方式介紹。
3. "有做到"若你是「水」，想對人類說的話。

<https://forms.gle/bEgsFPS7bG6S46TD7>

(無法使用點擊連結打開的話，請複製網址至瀏覽器後開啟。)

### III. Wrap up

1. The teacher reviews today's lesson. (including words and the topic)
2. Exit ticket.

**(The end of the fourth class)**

4-1 、4-2、4-3  
google form

1,

4-1 、4-2、4-3  
Oral  
assessment

評量內容與策略

評量規準 評量項目	A	B	C	D
英語聽說能力	能聽懂英文問題，並以正確流暢的英語表達回應。	能聽懂英文問題，並以英語回應，偶有小錯誤。	似乎聽懂英文問題，經引導會以簡短英語回應。	似乎聽不懂英文問題，無法以英語表達回應。
表達欣賞	會流暢使用英文正確表達對不同他人作品的正面意見。	大致會使用英文正確表達對他人作品的正面意見。	經引導會以簡短英文字詞表達對他人作品的正面意見。	不知道如何以英文表達出對任何他人作品的正面回應。

附件：教學簡報、學習單