

108 學年沉浸式英語健康與體育領域三年級教案

| 主題名稱 | 實施年級 | 實施時數 |
|-----------|--|------------|
| 群體健康 | 三年級 | 7 節(280 分) |
| 教學單元 | 大自然怎麼了 | |
| 能力指標 | Ca-II-2 人為與自然汙染對健康的影響,體認人類是自然環境中的一部分,並主動關心環境,以維護促進人類的健康。 | |
| 教學目標 | <p>1、 認知</p> <p>1-1 能知道促使環境改變的原因。</p> <p>1-2 能知道螢火蟲為環境指標的意義。</p> <p>1-3 能知道環境的改變,會對生物造成什麼樣的影響。</p> <p>1-4 能了解環保措施的目的。</p> <p>1-5 能知道拯救小溪的措施或方法。</p> <p>2、 技能</p> <p>2-1 能觀察並發現自然環境的改變。</p> <p>2-2 能依自己的能力,選擇參與拯救小溪活動。</p> <p>3、 情意</p> <p>3-1 能了解環境對生物的影響,進而知道維護良好環境才能促進健康生活。</p> <p>3-2 能說出自己對環境改變的感受,進而在生活中培養保護環境的觀念,體現環保生活的行為。</p> | |
| 相關英語單字/句型 | <p>相關英語單字:</p> <p>flowers, trees, river, lake, fish, shrimp, crabs, frogs</p> <p>nice, clean, dirty, polluted, beautiful, river,</p> <p>fireflies, disappearing,</p> <p>fish, shrimp, crabs, survive, smelly, healthy</p> <p>air pollution, noise pollution, land pollution, water pollution</p> <p>3Rs – reduce, reuse, and recycle,</p> <p>recycled furniture, recycled paper</p> <p>greenhouse effect</p> | |

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|-------------|--|
| | <p>cans, plastic bags, metal, glass, paper</p> <p>相關英語句型:</p> <p>What happened?</p> <p>Why are the rivers polluted?</p> <p>Because people throw garbage in the river/dump waste in the river.</p> <p>Why are the fireflies disappearing?</p> <p>Because people pollute the environment.</p> <p>What should we do?</p> <p>We should not pollute the environment.</p> <p>Do you have any ideas about how to reduce pollution?</p> <p>Do you know the 3Rs?</p> <p>They're _____.</p> <p>What is the greenhouse effect?</p> <p>Why did the river become dirty and smelly?</p> <p>People threw garbage in the river/dumped waste in the river.</p> <p>What kinds of pollution do you know?</p> <p>I know _____.</p> <p>What can we do to make more fresh air on Earth?</p> <p>Grow more trees/Don't burn things.</p> <p>What should we do to reduce CO2?</p> <p>Buy local food/Don't drive a lot/Save energy.</p> |
| <p>輔助教材</p> | <p>Computer, video, pictures,課本,電子書</p> |
| <p>教學目標</p> | <p>教學活動 (教學內容要點)</p> |

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| <p>1-1 能知道促使環境改變的原因</p> | <p>第一節 照片的故事</p> <p>1、 引起動機 (10')</p> <p>1. 教師先展示[清澈美麗的河川]情境圖,並引導學生說出自己對該自然環境的感受。</p> <p>T: What can you see in this picture? S: I can see a river, trees, birds, flowers, clouds and blue sky. T: What do you feel about it? S: It's beautiful. I feel happy. T: Awesome.</p> <p>2. 教師接著將[遭受污染的河川]情境圖,並引導學生說出自己對該自然環境的感受。</p> <p>T: How about this picture. What can you see in this picture? S: I can see a river. There are a lot of garbage in the river. I can see trees, birds, flowers but they're dying. The sky is gray. The air is awful. T: What do you feel about it? S: It's dirty. I feel sad. T: Oh, The river is polluted. The air is bad. The trees, birds and flowers are unhappy. 教師引導學生觀察河川污染的樣貌，討論並發表造成污染的可能因素。 T: What's the difference between these two pictures? S: One is nice and clean and the other is dirty and polluted. T: What happened? Why are the rivers polluted? S: 因為人類亂丟垃圾亂倒廢水污染水源。 T: Yes, Because people throw garbage in the river/dump waste in the river.</p> <p>二、發展活動</p> <p>1.教師詢問學生是否有戲水、觀魚游的經驗及當時的感受。</p> <p>2.教師展示[清澈美麗的河川]和[遭受污染的河川]的圖，詢問學生哪個環境才能觀魚游?怎麼做才能改善河川污染的問題? (15')</p> <p>T: Look at this picture. Have you ever jumped into a clean river? S: Yes, I have./ No, I haven't. T: Can you see any fish in the river? S: Yes, I can. T: What do you feel? S: The water is clean and cool. I feel good and happy. The fish is happy. T: Look at this picture. Will you jump into a polluted river? S: No, I will not. T: Why not. S: The water is dirty. There are a lot of garbage in the river. T: Can you see any fish in the polluted river? S: 很難看得到因為水很髒。 T: You're right. How can we improve the polluted river?</p> |
| <p>1-2 能知道螢火蟲為環境指標的意義</p> | <p>3. 播放[螢火蟲生態影片]，引導學生回想並分享自己賞螢火蟲的經驗或影片中的訊息，說出螢火蟲的生活環境在哪裡?須具備什麼條件?為達到這些條件，我們可以怎麼做? (25')</p> <p>https://www.youtube.com/watch?v=80LB4bSj-4Y</p> |

T: Let's watch a video.
 S:OK.
 (12 minutes later)
 T: What is this video about?
 S: It's about fireflies.
 T: Good. Do you see any fireflies around in Spring?
 S: No.What happened?
 S: 螢火蟲不見。
 T: Why are the fireflies disappearing?
 S: 因為人類污染環境。
 T: Bingo. Because people polluted the environment.
 The fireflies can't survive. They live in clean environment.
 What should we do ?
 S: 我們不要再污染環境。
 T: Yes. We should not pollute the environment any more.
 How can we do?
 S: 不亂丟垃圾、購物時自己帶購物袋(減少使用塑膠袋)、以走路代替開車、不噴灑農藥、多搭乘公共運輸工具。
 T: Excellent. We don't throw the garbage everywhere. We can bring our own shopping bags when we go shopping. We can walk if we don't have to drive. Don't use pesticide. Don't dump waste in the river.

第二節

1-3 能知道環境的改變，會對生物造成什麼樣的影

一、討論與分享

1.教師指導學生分組，根據先前討論的內容，我們要怎麼做?(5')

- A.為什麼小溪被汙染，螢火蟲也會消失?
- B.螢火蟲會再回來嗎?

T: Why are the rivers polluted?
 S: Because people polluted the environment.
 T: Why are the fireflies disappearing?
 S: 因為環境的汙染，所以螢火蟲消失了。
 T: Yes. The fireflies are disappearing because the polluted environment . Are fireflies coming back again?
 S: (Yes/No/I don't know.)
 T: They will be back if we have a clean and nice environment.

2. C.我們要怎麼做?

- D.還有其他整治小溪的方法嗎?
- E.整治小溪是誰的責任?

待學生充分討論後,請小組依序上臺分享統整的內容。(30')

T: I'm going to divided the class into 4 teams now.
 Every team gets 5 minutes to discuss about how to reduce the pollution.
 S: 不亂丟垃圾在河裏、不亂倒廢水在河裏。
 T: Yes. Don't throw the garbage in the river.
 Don't dump waste in the river.
 Don't pollute the ocean.
 The fish, crabs, shrimp, whales need nice

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| <p>2-1 能觀察並發現自然環境的改變。</p> | <p>and clean ocean to live. We don't throw the garbage everywhere. We can bring our own shopping bags when we go shopping. We can walk if we don't have to drive. Don't use pesticide. Don't dump waste in the river. You did a very good job.</p> <p>二、教師總結學生分享的內容，全班了解螢火蟲是環境的指標的原因。螢火蟲消失，代表環境的惡化;不良的環境，對居民的健康可能產生相對的影響，但只要用心改善環境，即可進行螢火蟲的復育，再次擁有健康的生活環境。(5')</p> |
| <p>1-4 能了解環保措施的目的</p> <p>2-2 能利用網路搜尋環境與生物關係的相關資訊。</p> | <p>第三節 改變中的大自然</p> <p>一、引起動機</p> <p>教師提示學生以螢火蟲生態為出發點，利用網路搜尋更多生物與環境變異的相關資訊，了解環境對生物的影響，主動關心環境，善盡環保的義務與責任。(5')</p> <p>T: Do you like fireflies? S: Yes, I do. T: Actually, there are a lot of animals disappearing. Go home and surf on the Internet if you can. You can find more information about it. We are responsible for the environment. For our better life we should take care of it.</p> |
| <p>1-5 能知道拯救小溪的措施或方法</p> | <p>問題與討論</p> <p>為什麼小溪會變成臭水溝? 住在又臭又髒的水溪裡，魚蝦能存活嗎? 設想自己住在附近，健康會不會受影響?(15')</p> <p>T: Why did the river become dirty and smelly? S: People threw garbage in the river/dumped waste in the river. T: Can fish, shrimp and crabs survive in dirty river? S: No, they can't. T: If the fish, shrimp and crabs are sick. We catch them and eat them. What do you think about us? S: We'll get sick,too. T: Yes, we'll get sick and the ocean will be polluted as well. Will you be healthy if you live around this area? S: No, we will be sick. T: We ruin the environment and are in trouble. So be nice to the earth.</p> |
| <p>2-3 能依自己的能力，選擇參與拯</p> | <p>1. 請學生自由發表自己知道或經歷過的環境汙染事件，分享環境改變前後的差異，造成的影響及試圖改變的方法。(15')</p> <p>T: Raise your hand if you see any pollution around your house. S: 我家附近有人燒垃圾。/我家附近有工廠亂排廢氣或污水。 T: Oh, no. Are you angry? S: Yes, I am. T: What did your parents do? S: 他們打電話到警察局。 T: Your parents called the police. Way to go. What kinds of pollution do you know?</p> |

救小溪活動。

S: 空氣污染、水污染....

T: Air pollution, noise pollution, land pollution, water pollution. Do you have any ideas about how to get rid of the pollution?

S: 不要再製造污染。/要好好對待我們住得地球。

T: Good idea.

2. 歸納(5')

A. 人類與其他生物都是自然環境的一分子，有相互依存的關係。

B. 自然環境遭受汙染或破壞，對居民與其他生物會造成不良影響。

C. 螢火蟲對棲息地要求很高的特性，被視為[環境指標]，有螢火蟲的地方，就代表擁有優良的環境。

D. 只要大家用心維護、積極改善，我們才能擁有生活的好環境，促進健康。

E. 整治小溪活動改善了汙染問題，讓臭味變少，水質清澈，魚蝦也多了，漸漸恢復了生氣。

F. 整治小溪是全體居民的責任，唯有同心協力，主動關心與投入，才能再次擁有清澈美麗的小溪，享受健康舒適的生活環境。(5')

T: There is only one earth. We can't pollute the environment. Keep the earth clean is the only way to save human. Let's make a better place for you and me.

第四節 環保”心”行動

一、引起動機(5')

引導學生了解植物對環境提供的功能。植物的減少或消失，對環境、生物或人類是否有影響?

T: Do you know what happened if there is no plants?

S: 沒有植物就沒有氧氣，人類可能無法生存。

T: Yes, you're right. We'll all die because we don't have any food to eat.

S: Oh, no.

1. 什麼是 3'Rs? (20)

T: Do you know the 3'Rs?

They're Reduce, Reuse, Recycle.

Let's watch a video to get more information.

<https://www.youtube.com/watch?v=TjnNOCbuoCA&t=87s>

(10 minutes later)

T: What did you see?

S: I see a 精靈 and a boy./如何做環保。

T: How to do "Reduce, Reuse, Recycle"?

S: 不使用塑膠袋。/洗澡用淋浴並減短時間。/刷牙時應隨手關水龍頭。/把舊衣服、舊玩具捐出去。/減少使用電，隨手關開關。

T: Good job.

Don't use plastic.

Save water by taking short showers.

Save water by closing taps while brushing teeth.

Donate old clothes and toys.

Reduce the use of electricity.

3-1 能了解環境對生物的影響，進而知道維護良好環境才能促進健康生活。

2.減少砍伐樹木教師播放免洗筷製作流程圖，引導學生思考，討論與分享。(20')

2-1.產品的源頭為何?製造過程中使用的化學藥劑，對環境、生態與人體是否產生不良的影響?

2-2.大量使用會造成什麼結果?

2-3.若想要改變問題 B，我們可以怎麼做?

2-4.自備餐具對環境及生態有哪些益處?

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

T: Let's watch the video.

(Six minutes later.)

What is this video about?

S: 如何製造竹筷。

T: Yes, it's talking about how to make chopsticks.

What do the workers use?

S: 他們用竹子做免洗筷。/他們加了化學藥劑避免竹筷發霉。

T: Bingo. The workers used chemical to keep the bamboo chopsticks from mold.

Is that OK?

S: No, it isn't.

T: What happened if you keep using those chopsticks?

S: 我們會生病。/竹子會一直減少。

T: Yes, we'll get sick.

The bamboo will reduce.

What should we do?

S: 不要使用免洗竹筷。

T: Don't use disposable bamboo chopsticks.

What can you do when you go out to eat?

S: 自己帶筷子、湯匙。

T: Yes, bring your own chopsticks and spoon when you are out to eat.

What happen if we don't use disposable bamboo chopsticks.

S: 我們就不會亂砍竹子了。

T: We don't cut the bamboo. It's good for our environment.

第五節

3.再生家具和再生紙(20')

教師播放再生家具和再生紙製作流程圖，引導學生思考，討論與分享

https://www.youtube.com/watch?v=P_ptObGsa5Q

T: Let's watch the video.

(Six minutes later.)

What is this video about?

S: 再生紙

T: Yes, it's recycled paper.

Why do we need to recycle paper?

S: 我們可以不需要砍伐很多樹木來製造紙張。

T: Yes, we do recycling to save a lot of resources. It's good for the earth.

What else can we recycle?

S: 鐵鋁罐類/塑膠類/金屬類/玻璃類//衣服

T: Cans/plastic/metal/glass/clothes.

3-1 為什麼會有再生物品的產出?(10')

A. 使用再生物品會造成什麼結果?

B. 這樣的結果對環境、生態與人體會產生良好的影響嗎?

C. 要讓森林製造更多新鮮空氣、調節溫度、增強水土保持、維護生物生存空間，我們還可以怎麼做?

T: Why are we making recycled paper and recycled furniture?

S: 因為環保。

T: Yes, that's for environmental protection.

What can we do to make more fresh air on Earth?

S: 種植更多樹木。/不要亂焚燒垃圾。/減少二氧化碳的產生。

T: Yeah. Grow more trees/Don't burn things./Reduce CO2

3-2 歌曲 The 3'Rs (10')

T: OK. Let's sing a song.

https://www.youtube.com/watch?v=USo_vH1Jz7E

3-2 能說出自己對環境改變的感受,進而在生活中培養保護環境的觀念,體現環保生活的行為。

第六節

一、引起動機(5')

教師提問並說明[溫室效應]是什麼? [溫室效應]對地球的環境與生物會造成什麼影響?我們可以怎麼做?

T: What is the greenhouse effect?

S: I don't know.

T: It's 溫室效應. 行星的大氣層因為吸收輻射能量,使得行星表面升溫應。

1-1 節能減碳(15')

引導學生思考並發表:為什麼這些做法可以達到節能減碳,減緩溫室效應?為達到節能減碳,減緩溫室效應的目的,我們可以怎麼做?

T: We need to do some brainstorming before we discuss.

What should we do to reduce CO2?

I'll divide the class into 4 teams.

Let me know your ideas in 2 minutes.

(2 minutes later.)

S: 吃當地當令的食物。/少開車多走路有益健康。/節能減碳。/回收再利用。

T: Good job. Buy local food/Don't drive a lot/Save energy./Recycling.

S: OK.

師生共同歸納:拯救大自然,你我有責任。響應環保綠生活,我們可以從生中實踐起。(20')

T: It's our duty to save the earth. We should do it right now.

S: OK.

T: What can we do to support the environmental protection? Think about it.

(2 minutes later)

S: 1.吃多少，點多少

- 2.舊衣回收做環保
- 3.盡量和家人待在同一個空間，以減少能源使用量
- 4.多走路,好健康
- 5.飯吃八分飽
- 6.天然的最好
- 7.打開窗戶,吹吹風
- 8.搭乘大眾運輸工具
- 9.自備隨身杯或水壺
- 10.水龍頭開小水量，使用完切記關緊水龍頭
- 11.早睡早起精神好
- 12.購買實用環保的物品

T:Excellent.

- 1.Recycle cans/plastic bags/metal/glass/paper/clothes.
- 2.Walk more.
- 3.Take public transportation.
- 4.Go to bed early.
- 5.Prepare your own shopping bags.
- 6.Bring your own water bottle, chopsticks , spoon or bowl when you eat out.

第七節

(一)、教師展示[垃圾汙染]情境圖，引導學生思考垃圾增量後，對環境和生物可能造成的影響。(5')

T: Look at this picture. What can you see?

S: I can see a lot of garbage.

T: Yeah, there are tons of garbage. It's no good for the creatures and the environment. Why?

S: 會讓生物生病、污染環境。

T: Yes, That will get the creatures sick and polluted the environment.

(二)、1.教師詢問學生是否知道臺灣垃圾處理方式或流程，學生自由發表，教師補充說明。(15')

2.討論並發表要做到垃圾減量，除了做好資源回收、少買過度包裝的物品、自備購物袋外，還能怎麼做?

<https://www.youtube.com/watch?v=gUFxP7rVZqg>

T: Let's watch a video.

(12 minutes later)

What is this video about?

S: There are too much garbage.

T: What should we do?

S: We should reduce, reuse, recycle the garbage.

T: Very good. Here is another video from Sweden.

<https://www.youtube.com/watch?v=3t2A27ppWMI&t=407s> (10')

T: What is this video about?

S: 有關資源回收。

T: Do you think is it a good idea to recycle the garbage?

S: Yes, it is.

T: Do you have better ideas for recycling?

S: Mmm..... No...

T: Remember the 3Rs. Reduce, reuse, and recycle. Here is the logo of Reduce, Reuse, Recycle



3. 垃圾分類, 寶貝地球(20')

將學生帶到校園資源回收場外，指導學生分享撿拾的垃圾物品及其所屬

的回收項目(一般垃圾、玻璃罐、塑膠瓶、鋁箔包、鐵鋁罐、塑膠瓶、

紙類等)以過關方式，先推選出各回收項目的關主動(負責監督該項回收

是否確實)，再指導小組將撿拾的物品準確所屬的回收處。確實無誤的

小組，教師給予適度的獎勵。

T: Let's go recycling.

I'll divide the class into 4 teams.

I'll give each team some garbage.

For example:

What is this?

S: It's a can.

T: Which buckets do you throw it into?

1. can 2. plastic 3. metal 4. glass 5. paper

S: Number 1.

(5 minutes later)

T: OK. Let's see what you do.

Good job. Let's see how many points can you get?

Team 1: get _____ e- coins.

Team 1: get _____ e- coins.

Team 1: get _____ e- coins.

Team 1: get _____ e- coins.