

《高中英语》（上外版）选择性必修三 第四单元 第2课时
学案（学生版）

I. Warm-up

Interactive Task 1: Review the main idea and organization of Reading A.

Q1: What is the theme of the text?

Q2: What is the organization of the text?

II. Language Focus

Interactive Task 2: Review and analyse the functions of small quantity of carbon dioxide in Para. 2-3.

Q1: Can you identify the connector that links the two functions of carbon dioxide in Para. 2-3?

1) what's more

to add more information that emphasizes what you are saying 更为甚者：更为重要的是

- 空气中少量的二氧化碳对我们没有害处，更为重要的是它对生命很重要。(what's more)

Q2: How do plants produce “food”?

2) absorb /əb'sɔ:b / vt.

to take in liquid, gas, or another substance from the surface or space around something 吸收（液体、气体等）

absorb heat/carbon dioxide/water/knowledge

sb. be absorbed in one's work

absorption /əb'sɔ: pʃən / noun

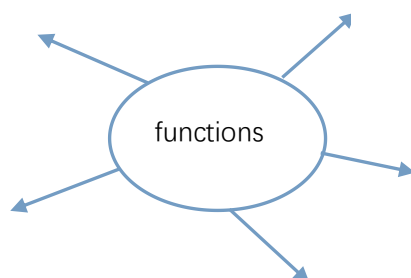
absorbent /əb'sɔ: bənt / adjective

Choose the word and phrases mentioned above and fill in the blanks in proper forms.

1. The scientists _____ their work on plants' _____ of carbon dioxide.

2. To sell recognized that these qualities might make it useful as an _____ material for removing carbon dioxide.

Q3: Could you list the words and expressions related to the function of CO₂ in Para. 2-3?



Interactive Task 3: Review and analyse the harmful effects of CO₂ in Para. 4-6.

Q1: Why is this apparently harmless and certainly essential gas harmful to us?

3) likelihood /'laɪklihod/

n. the chance of sth happening; how likely sth is to happen 可能; 可能性

adj. & adv. likely sb./sth. be likely to do sth.

It's likely that...

e.g. In all likelihood, the sea level will continue to rise and do so at a greater rate in the course of the next hundred years.

= The sea level will _____ continue to rise and do so at a greater rate in the course of the next hundred years.

= _____ the sea level will continue to rise and do so at a greater rate in the course of the next hundred years.

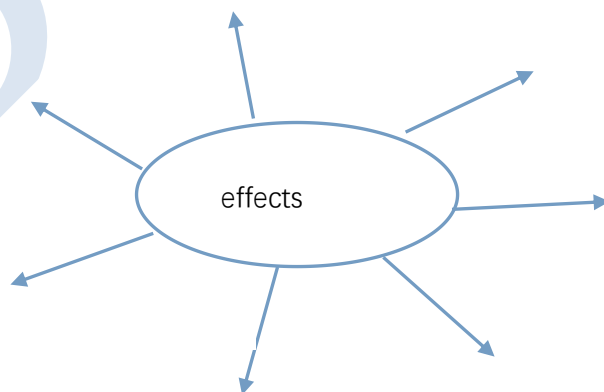
- 随着海平面的每年上升, 许多城市很可能被淹没, 引起了世界上很多耕地丢失。

As the sea level is rising from year to year, _____, many cities will be drowned, causing much of the most farming land of the world to be lost.

As the sea level is rising from year to year, many cities _____ be drowned, causing much of the most farming land of the world to be lost.

As the sea level is rising from year to year, _____ many cities will be drowned, causing much of the most farming land of the world to be lost.

Q2: Could you list the words and expressions related to the harmful effects of CO₂ in Para. 4-6?



Interactive Task 4: Review and analyse the causes of consequences of CO₂ in Para.7-11.

Q1: What does the greenhouse effect mean?

4) concentration /ˌkɒnsənˈtreɪʃən/

n. the amount of a substance contained in a liquid or in another substance 浓度; 含量

n. the ability to direct all your effort and attention on one thing, without thinking of other things 专心; 专注

vt. concentrate 集中于; 专注

concentrate one's efforts/attention/energy/mind etc on something 全神贯注于; 集中于

- 在这节课上, 生物老师将着重讲温室效应是怎样形成的。(concentrate)

- 随着温室气体浓度的下降, 地球开始再次变冷, 最终又将回到冰河时代。(concentration)

• _____, Earth starts to cool again, and eventually you slip back into an Ice Age.

- Human beings need powers of concentration to stop the concentration of carbon dioxide from moving upwards to avoid the greenhouse effect.

英译中: _____

Q2: What is it that demonstrates the villainy of carbon dioxide?

5) demonstrate /ˈdɛmənstreɪt/

v. to show sth clearly by giving proof or evidence 证明; 证实; 论证; 说明

~ sth (to sb)

~ that /how/what/why etc

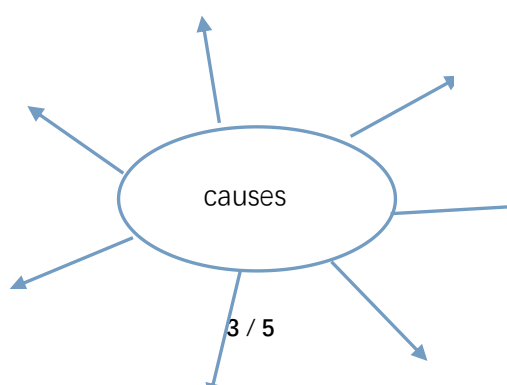
n. demonstration

- 这些结果有力地证明, 空气中的坏人是二氧化碳。(demonstrate)

- 冰盖的融化清楚的说明了全球的气候变暖。(demonstration)

The melting of the ice caps is _____.

Q3: Could you list the words and expressions related to the causes of these consequences in Para.7-11?



Interactive Task 5: List the topic-related words and expressions.

The Villain in the Atmosphere		
1. Functions of carbon dioxide	2. Harmful effects of carbon dioxide	3. Causes of these consequences
		..

III. Language application

Interactive Task 6:

Fill in the blanks with the appropriate forms of the given words and expressions to complete the dialogue.

Note that there are two more options than you need.

widespread	atmosphere	estimate	quantity	release
do harm to	at a rate of	come about	absorb	concentration

A: Do you know anything about carbon dioxide?

B: Carbon dioxide is a gas. We breathe in oxygen and breathe out carbon dioxide. And plants **1** _____ carbon dioxide.

A: So carbon dioxide is not really harmful?

B: Well, carbon dioxide itself does not **2** _____ the environment, but the **3** _____ of it in the atmosphere causes the “greenhouse effect.”

A: What is the “greenhouse effect”?

B: It is the process by which radiation from the sun is blocked by the greenhouse gases and not reflected back into space. The **4** _____ retains more heat than necessary.

A: How does that **5** _____?

B: In the last few centuries, coal, oil and natural gas have been burned for energy at a rapidly increasing rate. The carbon contained in these fuels is being **6** _____ in the form of carbon dioxide and poured into the

2C Unit 4 *The Villain in the Atmosphere*

atmosphere.

A: And the forests, once **7** _____, have been disappearing rapidly in the last couple of centuries.

B: Exactly. It is **8** _____ that tropical forests are now disappearing **9** _____ about 13 million hectares per year.

A: I see. The burning of fuel adds more carbon dioxide to the atmosphere, and as the forests disappear, less carbon dioxide is being removed by plants.

B: As a result, the **10** _____ of the carbon dioxide in the atmosphere is going up year by year.

Interactive Task 7: Group discussion

Question: what aspects of your daily life have been affected by the global warming?

Requirements:

- a. introduce the effects of the global warming.
- b. explain possible causes in a logical way.
- c. use as many words and expressions learnt in the text as possible.

IV. Homework

1. Complete Ex II on P55-P56;
2. Write a short passage (at least 100 words) on “what aspects of your daily life have been affected by the global warming? ”

Requirements:

- a. introduce the effects of the global warming.
- b. explain possible causes in a logical way.
- c. use as many words and expressions learnt in the text as possible.