Reading Comprehension Strategies

1. Predicting

It could be claimed that the ability to predict what a text entails is the first step to successful comprehension. A reader obtains the first clues to what a text is about via its title. Together with the opening sentences this can help the reader guess what the text will be about. The good reader then actively looks for cues, such as images, key words, headings, etc. to enrich his/her mental model of the text as reading proceeds. In turn, the developing representation of the text can be used to set up expectancies at the word, sentence and text levels. This will facilitate reading fluency and deepen understanding.

Task 1. You will read a text about why *protecting forests seems a better option than growing crops for biomass.*
According to the cues provided, what is the text about?

a. The University of Exeter is conducting research on bioenergy.
b. Producing bioenergy to limit climate change requires a radical change in land use.
c. It will be complex to meet the climate change targets from the Paris agreement.
d. Protecting forests is essential for keeping climate change under control.
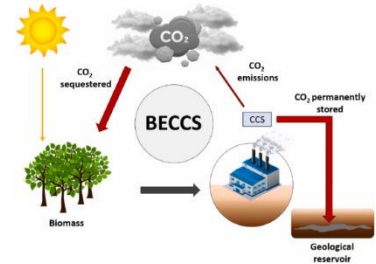
Task 2. Match a headings with the corresponding picture and key sentence.

Heading	Picture	Key sentences
1. The research team involved in the study	I.	**a.** Growing crops for bioenergy might increase CO2 emissions in the atmosphere.
2. BECCS better locations	II.	**b.** Dealing with climate change with BECCS needs a huge land- use change worldwide.
3. Bioenergy with BECCS power stations		
4. The effect of using BECCS on a large scale	III.	**c.** In many places, protecting forests is more sensible than planting crops for bioenergy.
5. BECCS to limit global warming	IV.	**d.** BECCS is efficient when it is located in specific places.
	V.	**e.** The study was led by the University of Exeter.

Task 3. Read the following extract which belongs to the article in this lesson and answer some comprehension questions.

Trying to tackle climate change by replacing forests with crops for bioenergy power stations that capture carbon dioxide (CO_2) could instead increase the amount of CO_2 in the atmosphere, scientists say. Bioenergy with Carbon Capture and Storage (BECCS) power stations are designed to produce energy and store the resulting CO_2 in bedrock deep underground. But a study led by the University of Exeter suggests that converting large land areas to growing crops as biomass for BECCS would release so much CO_2 that protecting and regenerating forests seems a better option in many places.

1. What are Bioenergy with Carbon Capture and Storage power stations designed for?

....

2. What does the study led by the University of Exeter reveal?

....

3. Why would growing crops as biomass for BECCS increase CO2 in the atmosphere?

....

Task 4. Now, you are ready to provide the original title of the article

a. Fewer biofuels, more green space: Climate action researcher calls for urgent shift

b. Forests are crucial for limiting climate change to 1.5 degrees

c. A full switch to low-carbon energy is in sight

Task 5. Complete this K-W-L chart. Think about what you know about the topic, what you want to know (What specific questions do you have?) and what you learn from the text (new information, answers to your questions, new questions).

K (Know)	W (Want to know)	L (Learned)

Task 6

Now, read the complete article.

Trying to tackle climate change by replacing forests with crops for bioenergy power stations that capture carbon dioxide (CO_2) could instead increase the amount of CO_2 in the atmosphere, scientists say. Bioenergy with Carbon Capture and Storage (BECCS) power stations are designed to produce energy and store the resulting CO_2 in bedrock deep underground. But a study led by

5   the University of Exeter suggests that converting large land areas to growing crops as biomass for BECCS would release so much CO_2 that protecting and regenerating forests seems a better option in many places.

"The vast majority of current Intergovernmental Panel on Climate Change (IPCC) scenarios for how we can limit global warming to less than 2°C include BECCS," said lead author Dr Anna

10   Harper, from the University of Exeter. "But the land required to grow biomass in these scenarios would be twice the size of India." This motivated the research team to look at the wider consequences of such a radical change in global land use. The researchers used a cutting-edge computer model of global vegetation and soil and presented it with scenarios of land-use change consistent with stabilizing the climate at less than 1.5°C and 2°C of global warming.

15   The results warn that using BECCS on such a large scale could lead to a net increase of carbon in the atmosphere, especially where the crops are assumed to replace existing forests. Co-author Dr Tom Powell, from the University of Exeter, explained: "In some places BECCS will be effective, but we have found that in many places protecting or regenerating forests is much more sensible."

20   How well BECCS works depends on factors such as the choice of biomass, the fate of initial above-ground biomass and the fossil-fuel emissions offset in the energy system -- so future improvements could make it a better option. Professor Chris Huntingford, of the UK Centre for Ecology and Hydrology, said: "Our paper illustrates that the manipulation of land can help offset carbon dioxide emissions, but only if applied for certain quite specific locations." Dr Harper

25   concluded: "To meet the climate change targets from the Paris agreement, we need to both drastically reduce emissions and employ a mix of technologies to remove carbon dioxide from the atmosphere. There is not a simple way out."

The team involved in the new study included researchers from the Centre for Ecology and Hydrology and the Meteorological Office (the United Kingdom's national weather service).

30   Drawing together expertise to create solutions to the global changes that humans are now causing is a key focus of the University of Exeter's new Global Systems Institute. The Global Systems Institute brings together researchers, students, citizens and partners to solve global challenges, and help create a flourishing future world together, through transformative research and education.

Task 7. Reflect and Discuss
How making predictions helped you understand and
engage with the text better.