Unit 4 – A dream of a hydrogen economy

Answer the questions:

- 1. What consequences could switching from fossil fuels to hydrogen lead to? (1)
- 2. What were the government investments aimed at? (1)
- 3. When will the hydrogen economy become reality? (2)
- 4. Whose reports is the prediction in Q3 based on? (2)
- 5. What is the cheapest way today to produce hydrogen? And what are its disadvantages? (3)
- 6. What other ways are used to produce hydrogen? Are they successful? (4)
- 7. What is even a bigger challenge than hydrogen production? (5)
- 8. Compare the parameters of hydrogen and gasoline (5)
- 9. How could these problems be overcome? (5)
- 10. What are fuel cells and how have they been used so far? (6)
- 11. What obstacles do hydrogen powered cars face? (7)
- 12. What infrastructure would be necessary for the hydrogen economy? (8)
- 13. What does ,a chicken-and-egg problem" mean? (8)
- 14. Who is Jo Ann Milliken and what does she say about energy research? (9)
- 15. What are governments expected to do? (10)

Definitions

- > the development of a country or region that does not use more natural resources than can be replaced and so does not harm the environment
- > fishing that damages a river or an area of sea because too many fish are caught
- > the process of removing the trees from an area of land
- the act of putting new trees into a place where the original trees have been cut
- ➤ liquid waste such as sewage human waste or waste from a factory
- > a large hole in the ground where waste from people's homes or from industry is buried
- > a substance that is harmful to the environment
- > a machine that destroys waste or other material by burning it
- > activities by a business or other organization that are intended to show that the organization is concerned about the environment
- > to reduce the amount of something or the number of things, natural resources etc.

LINKING EXPRESSIONS

Exercise 1

- 1. Amanda will get her birthday card in time, as long as / so long you send it today.
- 2. It looks as although / as though it's going to rain.
- 3. Nina left work early for / so she could go to the dentist.
- 4. In addition / besides to a spacious apartment in Manhattan, the family owns a house in the South of Spain.
- 5. It was so / such an awful film that many people left the cinema halfway through it.
- 6. They managed to win the match, as a result / even though they played really badly.
- 7. Schools and businesses stayed open yesterday <u>despite / in spite</u> the terrible weather.
- 8. Patrick did very well in most of his exams. <u>Although / However</u>, he failed his German exam and will have to take it again in September.

Exercise 2

- 1. They are reducing bus and train fares in order / so as to encourage more people to use public transport.
- 2. Since / Therefore we have got an hour until the plane leaves, let's go for a coffee.
- 3. Even so / Even though Pamela is still at school she's already a bestselling novelist.
- 4. You can use my laptop computer, as long / provided you promise to take very good care of it.
- 5. Mrs Smith wants to go snorkelling in Florida this summer, <u>however / whereas Mr Smith wants to go and play golf in Scotland.</u>
- 6. <u>As / Though</u> Julian had the necessary qualifications, he didn't get the job.
- 7. The photography exhibition was a great success in the United States. The organizers have decided, \underline{so} therefore, to take the exhibition to the UK.
- 8. Studying a second language can be very good for your career. <u>As well as / Furthermore</u>, it can introduce you to fascinating cultures.

	ony Blair is the most popular Prinare uneasy with his approach.	me Minister this century.	, there are even members of
In particular	However	For instance	
2 There are some sl consequently	light variations in temperature, bu otherwise	as a rule	C should be expected.
3 The two main Chafor example	annel Islands,namely	_ Jersey and Guernsey, are mucl in particular	n closer to France than to England.
4 It was announced expected to join the		d be increased by 25%.	, even fewer trainee nurses are
As a result	So that	Likewise	
	e experienced a small but steady share of the market, up to 1.7%. Correspondingly	fall over the past 12 months In contrast	, vinyl records have seen
			cause of unexpected bad debts, it would be, no-one was getting a pay rise.
	ore, that the situation in Brazil wil an, the outlook is slightly more op		the economic problems being
Furthermore	In comparison	With reference to	
	reduce car use in the inner cities,, a new tax on individu		new restrictions on company parking
as well as		in the same way	
9 Essays must be ha obviously	anded in by the deadline, otherwise	they will not be marked as a result	ed.
10not be completely d	_ it has been shown that fractures	can occur at even relatively low	v pressures, the use of the material should
Nevertheless	Because	Even though	

Exercise 1.

Choose the right alternative.

- 1. In spite / Despite the noise we managed to sleep.
- 2. Even so / Even though the plane took off late, we still reached our destination on time.
- 3. We moved quietly around the flat, so as not to / in order to wake the baby.
- 4. He had a terrible cold. Even so / Even though, he insisted on going swimming.
- 5. He looked at me as if / as although I were crazy.
- 6. Even if / Even though I became a millionaire, I would carry on working.
- 7. Egypt was so /such an interesting country that we plan to go back next year.
- 8. Since / Therefore it was getting dark she decided to take a taxi home.

Exercise 2.

Choose the right alternative.

- 1. We arrived late because of / due the traffic.
- 2. It was a lovely day. However / Although, we had to stay indoors and paint the living room.
- 3. Though / Even they were going on holiday for just a week she took two suitcases.
- 4. They found him guilty however / despite the fact there was very little evidence.

least once, if only for reflection and contrast, by all students of Education.

- 5. He would rather spend his money on CDs as / than on clothes.
- 6. The exam was really tough. He managed, despite / nevertheless, to come top of the class.
- 7. I'll go to the party as long / provided you go too.
- 8. I went to the party. It wasn't much fun, although / though.

Task 1.

Read the following paragraph and put each of the following linking words or phrases in the gaps.

In contrast	At the same time		On the	contrary	
On the other hand	A case in point	Both	Yet	Furthermore	
Unlike	an example of this	S	Despite	e/In spite of	
The McNuggets' menu i everything that should salt and sugar. ² century, offers much m and prepared have bee pretentions of the refecold child. ⁵ it is middle of a large birthd partygoers. ⁶ ten times too much foo	normally be avoided. T , the College refe ore nutritious food. 3 n transformed by a reve tory are calculated to a not uncommon in McN ay party, with music, g is the McBanquet	The fishburectory, who olutionary appeal to the uggets to elames and	ger is particose menu w , its kitconew chef. 4 ne serious a enter a resta food out of	ularly high in fat, was completely revise thems and the way the cademic rather that aurant and find you all proportion to the	with added sed early this food is caughte decor and in the six-year urself in the number of
McNuggets and Some say that College century by destroying was to others the new in-hoof the lunch menu with on Wednesdays, is 9	management completed what was left of the tracture use catering team has their exciting new orga	d the work ditional Eng enhanced	started by glish puddin and extende	the fast food chain gs. ⁸ ed the health value	s in the last , according and interest
McNuggets, into an elegant, spaciou cashier's desk at the fa	is and modern cafeteria r end of the servery is a	a, seamles: a perfect il	sly combinir lustration of	ng ancient and mod this point. 11	dern. The their

<u>Conditionals – exercises</u>

1. Put each verb in brackets into an appropriate verb for	m.
a) Now we're lost! If youb) Why don't we emigrate? If we	
(be) better!	(1., 0) 11. 1. 100 10 11. 01. 01. 01. 01. 01. 0
c) Thanks to Dr Jones, I'm still alive! If it	(not/be) for her, I
d) What a terrible thing to happen! Just think, if we (kill) in the crash.	(not/miss) the plane, we
e) If you'd told me it was a surprise party, I	
2. Rewrite each sentence three times so that it contains	the word in capitals.
a) We won't go away if the weather is bad.	
	UNLESS
	ONLY
	STAY
b) If they offered you the job, would you accept?	
	WERE TO
	SHOULD
	HAPPENED
c) Without your help, I would have given up years ago.	
	HADN'T BEEN
	BUT
	HADN'T HELPED
d) I'll lend you the money on condition that you pay it bad	ck next week.
	PROVIDED
	LONG
	ONLY
3. Complete the text by writing one word in each space.	
Mr Jeffries, I have decided against a prison sentence in your that you report to Chesham policy you fail to (2)	ce station every Friday for the next six months. Should one warning; and if you persist (3)
that (7) for your previous good cono hesitation in imposing a prison sentence. And I shall n	
intervened in the fight, you might (10)	
4. Complete the second sentence so that it has a similar not change the word given.	• •
	_
a) If you are in London by any chance, come and see me. If you	nd see me.
b) The fire was brought under control thanks to the night-	
If it hadn'tgot	
c) Dick is in prison because a detective recognised him. if	
Dickwo	uldn't recognised him.
d) I am not tall enough to reach the shelf. taller	
If Ireach	the shelf.