Microchips

Reading Test

EXAMPLE

Student

Time: *Approximately 1hour*
Two types of lesson

Lesson#1: [Easy] ***** [B2/C1]
1. Predict the content of the text by reading the title. Write down the key terms & ideas.
2. Read the text. Check the unknown words with a dictionary.
3. Answer the comprehension questions.
4. Check your answers with the provided key (pass mark is 70%).

Lesson #2: [Hard] ***** [C1]
1. Read the text without looking up any words.
2. Answer the comprehension questions.
3. Check your answers with the provided key (pass mark is 70%).

Teacher

Two types of lesson

Lesson#1: [easy] ***** [B2/C1]
1. Distribute **text 1 (without reference words underlined)** a week before the test. Students read, check vocabulary & meanings.
2. Test day. Distribute **text 2 (with reference words underlined)** & the **questions** (no dictionary or notes).
3. Set 1 hour to read the text & answer the questions.
4. Take in & correct or go through answers in class (pass mark is 70%).
5. Extra activity. Students write the *summary (add 30 minutes to the test).

Lesson #2: [hard] ***** [C1]
1. Test day. Distribute **text 2 (with reference words underlined)** & the **questions.**
2. Set 1 hour to read the text & answer the questions.
3. Take in & correct or go through answers in class (pass mark is 70%).
4. Extra activity. Students write the *summary (add 30 minutes to the test).

***Summary writing:** www.academic-englishuk.com/summary

The microchip shortage (text 1) EXAMPLE

By C Wilson (2022)

The current global shortage of the miniscule, integrated circuits known as microchips and found in a [redacted], to cars looks set to continue for a number of years, as demand for these low-cost but highly-efficient [redacted]. Microchip production is known for its fluctuations, as can be seen over the last three years wherein [redacted] but then two years later grew from 6.5% to 26%, and with sales toppling almost one billion in April 2021, yet this growing scarcity first seen in the electronics industry, has now spread to [redacted] the automotive [redacted] considerable consequences (Gooding, 2021; Shein, 2021).

The microchip shortage can be traced back to the beginning of 2020, when the Covid-19 pandemic hit. Shein (2021) argues that the increase [redacted] and home-schooling meant chip manufacturers shifted their focus from cars. Now that these restrictions have [redacted] our incessant need for cutting-edge technology once again increased, but also prices of items such as computer [redacted] and 8% respectively (The Week, 2021). Although the demand for cars has returned to a high level, production [redacted] worth of lost production due to shutdowns of Ford and General Motors plants across North America and Jaguar Land Rover's poor sales over the last two years (Gooding, 2021). As [redacted], many car companies such as Nissan, Renault and Ram Tracks have had to omit certain elements from [redacted], such as navigation systems and intelligent rear view mirrors for blind spots (Shead, 2021). What has also become apparent over these last two years is the [redacted] manufacturers. Although [redacted] production and 70% of memory chip output now happens in Asia because costs are lower, specifically at Samsung [redacted] Manufacturing Company (TSMC), which also suffered at the hands of the country's worst drought in over fifty years in 2021, leaving many manufacturers with [redacted] (Shein, 2021; The Week, 2021; Gooding, 2021). Therefore, it could be said that although global health crises and natural disasters cannot be foreseen, [redacted] of manufacturing diversification.

In order to prevent the current crisis from deepening, Gooding (2021) reveals that in Asia, both Samsung and TSMC plans [redacted], whereas in Europe, the European Commission aims to double its global chip production by 2030 with up to €30bn as [redacted] manufacturers (Shead, 2021). With regard to North America, Shein (2021) reports that the new $250bn Innovation [redacted] the sector, in [redacted] and Texas Instruments who have vowed to build a total of eight new fabrication facilities. However, not only are the fabrication plants extremely complex and expensive to construct, [redacted] it can [redacted] the silicon required into useable chips (The Week, 2021). Moreover, as reported by Shein (2021), microchip supply chains could be more transparent and diverse, with a focus on more regional [redacted] industry [redacted] a just-in-time approach and more towards just-in-case, and by using the analytical and statistical data available, [redacted] able to 'match [redacted] and manual processes'. Thus, although plenty of investment is being put forward, what is also needed [redacted] major changes are made to supply chains.

As it is estimated that the microchip shortage [redacted], and as a result, product delays could continue for even longer, the optimal solution would be for semiconductor [redacted] in supply and demand. This can be achieved through avoiding a dependency on Samsung and TMSC and making better use of the supply and demand data available in order to be [redacted]. As [redacted] how much we need to have the latest gaming console or OLEG television, so that the [redacted] time.

Reference list

Gooding, M., (2021). *Here's what we know about the global chip shortage* [online]. Available at: https://techmonitor.ai/technology/chip-shortage-tsmc-samsung-us-uk-taiwan-automotive [Viewed 02.03.2022].

Shead, S., (2021). *The global* [redacted] [online]. Available at: https://www.cnbc.com/2021/05/07/chip-shortage-is-starting-to-have-major-real-world-consequences.html [Viewed 20.03.2022].

Shein, E., (2021). *Global chip shortage: Everything you need to know* [online]. Available at: [redacted] [Viewed 20.03.2022].

The Week, (2021). *'There is no end in sight': everything to know about the great microchip shortage* [online]. Available at: [redacted] [Viewed 20.03.2022].

The microchip shortage (text 2) EXAMPLE

By C Wilson (2022)

1. The current global shortage of the miniscule, integrated circuits known as microchips and found in a [redacted], to cars looks set to continue for a number of years, as demand for these low-cost but highly-efficient [redacted]. Microchip production is known for its fluctuations, as can be seen over the last three years wherein [redacted] but then two years later grew from 6.5% to 26%, and with sales toppling almost one billion in April 2021, yet this growing scarcity first seen in the electronics industry, has now spread to [redacted] the automotive [redacted] considerable consequences (Gooding, 2021; Shein, 2021).

2. The microchip shortage can be traced back to the beginning of 2020, when the Covid-19 pandemic hit. Shein (2021) argues that the increase [redacted] and home-schooling meant chip manufacturers shifted their focus from cars. Now **that these restrictions** have [redacted] our incessant need for cutting-edge technology once again increased, but also prices of items such as computer [redacted] and 8% respectively (The Week, 2021). Although the demand for cars has returned to a high level, production [redacted] worth of lost production due to shutdowns of Ford and General Motors plants across North America and Jaguar Land Rover's poor sales over the last two years (Gooding, 2021). As [redacted], many car companies such as Nissan, Renault and Ram Tracks have had to omit certain elements from [redacted], such as navigation systems and intelligent rear view mirrors for blind spots (Shead, 2021). What has also become apparent over these last two years is the [redacted] manufacturers. Although [redacted] production and 70% of memory chip output now happens in Asia because costs are lower, specifically at Samsung [redacted] Manufacturing Company (TSMC), which also suffered at the hands of the country's worst drought in over fifty years in 2021, leaving many manufacturers with [redacted] (Shein, 2021; The Week, 2021; Gooding, 2021). Therefore, it could be said that although global health crises and natural disasters cannot be foreseen, [redacted] of manufacturing diversification.

3. In order to prevent the current crisis from deepening, Gooding (2021) reveals that in Asia, both Samsung and TSMC plans [redacted], whereas in Europe, the European Commission aims to double its global chip production by 2030 with up to €30bn as [redacted] manufacturers (Shead, 2021). With regard to North America, Shein (2021) reports that the new $250bn Innovation [redacted] **the sector**, in [redacted] and Texas Instruments who have vowed to build a total of eight new fabrication facilities. However, not only are the fabrication plants extremely complex and expensive to construct, [redacted] it can [redacted] the silicon required into useable chips (The Week, 2021). Moreover, as reported by Shein (2021), microchip supply chains could be more transparent and diverse, with a focus on more regional [redacted] industry [redacted] a just-in-time approach and more towards just-in-case, and by using the analytical and statistical data available, [redacted] able to 'match [redacted] and manual processes'. Thus, although plenty of investment is being put forward, what is also needed [redacted] major changes are made to supply chains.

4. As it is estimated that the microchip shortage [redacted], and as a result, product delays could continue for even longer, the optimal solution would be for semiconductor [redacted] in supply and demand. **This** can be achieved through avoiding a dependency on Samsung and TMSC and making better use of the supply and demand data available in order to be [redacted]. As [redacted] how much we need to have the latest gaming console or OLEG television, so that the [redacted] time.

Reference list

Gooding, M., (2021). *Here's what we know about the global chip shortage* [online]. Available at: https://techmonitor.ai/technology/chip-shortage-tsmc-samsung-us-uk-taiwan-automotive [Viewed 02.03.2022].

Shead, S., (2021). *The global* [redacted] [online]. Available at: https://www.cnbc.com/2021/05/07/chip-shortage-is-starting-to-have-major-real-world-consequences.html [Viewed 20.03.2022].

Shein, E., (2021). *Global chip shortage: Everything you need to know* [online]. Available at: [redacted] [Viewed 20.03.2022].

The Week, (2021). *'There is no end in sight': everything to know about the great microchip shortage* [online]. Available at: [redacted] [Viewed 20.03.2022].

Comprehension Questions

1. Headings: choose a subheading for each paragraph. One title is not needed.

1	*E (example)*	**A**	More investment is needed
2		**B**	Improvements
3		**C**	The rationale for the issues of scarcity
4		**D**	Focused
		E	~~The unpredictability of the microchip industry~~

___ / 3

2. True / False / Not Given: One question per paragraph.		**T / F / NG**
Paragraph 1		
i.	Semi-conductor microchips have been outselling demand since 2018.	
Paragraph 2		
ii.	The COVID 19 Pandemic was of microchips.	
Paragraph 3		
iii.	Investment is .	
Paragraph 4		
iv.	The best solution to increase supply.	

___ / 4

3. Open Answer Questions.

Paragraph 1. What is the most affected industry from the microchip crisis??

i.	

___ / 1

Paragraph 2. Name TWO consequences ?

i.		ii.	

___ / 2

Paragraph 2. Who are the TWO top ?

i.	
ii.	

___ / 2

Paragraph 2. What did Taiwan experience ?

i.	

___ / 1

Paragraph 3. How are Europe and America addressing manufacturers?

Europe	
America	

___ / 2

Paragraph 3. How can microchip supply chains be improved?

i.	
ii.	
iii.	
iv.	

___ / 4

Paragraph 4. What are the [redacted] business?

i.	
ii.	

___ / 2

Paragraph 4. What are the [redacted] for consumers?

i.	

___ / 1

4. Summary [out of these EIGHT solution statements, choose the FOUR correct ones]

i. The semiconductor microchip industry needs to…

a) diversify its manufacturing processes.
b) be [redacted] manufactures.
c) build more fabrication facilities in Europe and the US.
d) build microchips [redacted] months.
e) be more transparent.
f) be [redacted] recover.
g) not let this happen again.
h) make [redacted] supply chain.

___ / 6

4. Reference Words: Explain what these reference words connect to: (**underlined** in the text).

Paragraph	Word(s)	Connection
1	it	*Growing scarcity*
2	these restrictions	
2	their	
2	[redacted]	
3	the sector	
3	[redacted]	
4	This	

___ / 6

5. Vocabulary: Search for the word in the paragraph that means:

Paragraph	**Explanation**	***Word***
1	Two or more things combined in order to become more effective.	*Integrated (example)*
1	To [redacted] something else.	
1	A situation in which something is not easy to find or get.	
2	Never stopping, [redacted] unpleasant way.	
2	Closes / or stops working for a period of time.	
2	The state [redacted] in something or someone.	
2	The process [redacted] or offer new services, or an instance of this.	
3	To make a serious or formal promise to give or do something.	
3	Involving a [redacted] parts.	
4	Possible when [redacted] exist.	
4	A situation in [redacted] and are unable to continue normally without them.	

___ / 10

Overall Total: ____ / 42

Comprehension Questions ANSWERS

1. Headings: choose a subheading for each paragraph. One title is not needed.

1	*E (example)*	**A**	More investment is needed (not needed)
2	C	**B**	Improvements in supply and demand
3	D	**C**	The rationale for the issues of scarcity

ALL ANSWERS INCLUDED IN PAID VERSION…