

#### A. <u>Spark-up</u>



# **IS GLOBAL WARMING REAL?**

Scientific consensus is overwhelming: The planet is getting warmer, and humans are behind it

In recent years, global warming and climate change have been the subject of a great deal of political controversy, especially in the U.S. But as the science becomes clearer and consensus grows impossible to ignore, debate is moving away from whether humans are causing warming and toward questions about how best to respond.

Evidence of rising temperatures is pervasive and striking: Thermometer records kept over the past century and a half show Earth's average temperature has risen more than 1 degree Fahrenheit (0.9 degrees Celsius), and about twice that in parts of the Arctic.

That doesn't mean temperatures haven't fluctuated among regions of the globe or between seasons and times of day. But by analyzing average temperatures all over the world, scientists have demonstrated an unmistakable upward trend.

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This trend is part of climate change, which many people consider synonymous with global warming. Scientists prefer to use "climate change" when describing the complex shifts now affecting our planet's weather and climate systems. Climate change encompasses not only rising average temperatures but also extreme weather events, shifting wildlife populations and habitats, rising seas, and a range of other impacts.

All of these changes are emerging as humans continue to add heat-trapping greenhouse gases to the atmosphere.

#### How is climate change measured?

Although we can't look at thermometers going back thousands of years, we do have other records that help us figure out what temperatures were like in the distant past. For example, trees store information about the climate in the place they're rooted. Each year trees grow thicker and form new rings. In warmer and wetter years, the rings are thicker. Old trees and wood can tell us about conditions hundreds or even thousands of years ago.

Windows on the past are also buried in lakes and oceans. Pollen, particles, and dead creatures fall to the bottom of oceans and lakes each year, forming sediments. Sediments contain a wealth of information about what was in the air and water when they fell. Scientists reveal this record by inserting hollow tubes into the mud to collect layers of sediment going back millions of years.

For a direct look at the atmosphere of the past, scientists drill cores through the Earth's polar ice sheets. Tiny bubbles trapped in the ice are actually samples from the Earth's past atmosphere, frozen in time. That's how we know that the concentrations of greenhouse gases since the Industrial Revolution are higher than they've been for hundreds of thousands of years.

Computer models help scientists to understand the Earth's climate, or long-term weather patterns. Models also allow scientists to make predictions about the future climate by simulating how the atmosphere and oceans absorb energy from the sun and transport it around the globe.

#### We are the reason

Several factors affect how much of the sun's energy reaches Earth's surface and how much of that energy gets absorbed. Those include greenhouse gases, particles in the atmosphere (from volcanic eruptions, for example), and changes in energy coming from the sun itself.

Climate models are designed to take such factors into account. For example, models have found that changes in solar irradiance and volcanic aerosols have contributed only about two percent of the recent warming effect over 250 years. The balance comes from greenhouse gases and other human-caused factors, such as land-use changes.

The speed and duration of this recent warming is remarkable as well. Volcanic eruptions, as an example, emit particles that temporarily cool the Earth's surface. But they have no lasting effect beyond a few years. Events like *El Niño* also work on fairly short and predictable cycles. On the other hand, the types of global temperature fluctuations that have contributed to ice ages occur on cycles of hundreds of thousands of years.

The answer to the question, *"Is global warming real?"* is yes: Nothing other than the rapid rise of greenhouse gas emissions from human activity can fully explain the dramatic and relatively recent rise in global average temperatures.

(Retrieved from <a href="https://www.nationalgeographic.com/environment/global-warming/global-warming-real/">https://www.nationalgeographic.com/environment/global-warming/

### C. Vocabulary

VOCABULARY	PRONUNCIATION	DEFINITION	VIETNAMESE
1. absorb (v)	/əbˈzɔːb/	to take something in, especially gradually	hấp thụ
2. bury (v)	/ˈber.i/	to <mark>put something</mark> into a hole in the ground and cover it	chôn
3. consensus (n)	/kənˈsen.səs/	a ge <mark>nerally accep</mark> ted opinion or decision among a group of people	sự nhất trí
4. controversy (n)	/ˈkɒn.trə.vɜː.si / /kənˈtrɒv.ə.si/	a lot of disagreement or argument about something, usually because it affects or is important to many people	<mark>sự</mark> tranh luận, sự tranh cãi
5. debate (n)	/dɪˈbeɪt/	a serious discussion of a subject in which many people take part	<mark>cu</mark> ộc tranh luận, cuộc thảo luận, cuộc tranh cãi
6. distant (adj)	/ˈdɪs.tənt/	far away	xa
7. drill (v)	/dr1l/	to make a hole in something using a special tool	khoan
8. El Niño (n)	/el ˈniːn.jəʊ/	an unusual ocean current that happens along the western coast of South America every two to ten years, killing large numbers of sea creatures and causing noticeable and often severe changes in weather conditions in many areas of the world	
9. em <mark>it (v)</mark> emission (n)	/iˈmɪt/ /iˈmɪʃ.ən/	to send out a beam, noise, smell, or gas	thải ra
10. encompass (v)	/ɪnˈkʌm.pəs/	to include different types of things	chứa đựng
11. fluctuate (v) fluctuation (n)	/ˈfl∧k.tʃu.eɪt/ /ˌfl∧k.tʃuˈeɪ.ʃən /	to change, especially continuously and between one level or thing and another	biến động
12. hollow (adj)	/ˈhɒl.əʊ/	having a hole or empty space inside	trống rỗng
13. ignore (v)	/ɪgˈnɔːr/	to intentionally not listen to or give attention to	phớt lờ
14. irradiance (n)	/Iˈreɪdɪəns/	the power per unit area received from the sun	bức xạ

15. mud (n)	/mʌd/	earth that has been mixed with water	bùn
16. particle (n)	/ˈpɑː.tɪ.kəl/	extremely small pieces of matter	hạt, phần tử
17. pervasive (adj)	/pəˈveɪ.sɪv/	present or noticeable in every part of a thing or place	lan tràn khắp thâm nhập khắp
18. political (adj)	/pəˈlɪt.ɪ.kəl/	relating to the activities of the government, members of law- making organizations, or people who try to influence the way a country is governed	về chính trị
19. pollen (n)	/ˈpɒl.ən/	a powder, produced by the male part of a flower that causes the female part of the same type of flower to produce seeds. it is carried by insects or the wind.	phấn hoa
20.remarkable (adj)	/rɪˈmɑː.kə.bəl/	unusual or special and therefore surprising and worth mentioning	đáng chú ý
21. root (v)	/ruːt/	having developed from something	bén rễ, ăn sâu vào
22. sediment (n)	/ˈsed.ɪ.mənt/	a soft substance that is like a wet powder and consists of very small pieces of a solid material that have fallen to the bottom of a liquid	trầm tích (cát, sạn,) cặn
23. shift (n)	/ʃɪft/	a change in position or direction	s <mark>ự thay đ</mark> ổi (về vị trí, <mark>bản chất, hình dán</mark> g,)
24. s <mark>imulate (v)</mark>	/ˈsɪm.jə.leɪt/	to do or make something that looks real but is not real	tái tạo bằng mô hình
25. striking (adj)	/ˈstraɪ.kɪŋ/	very unusual or easily noticed, and therefore attracting a lot of attention	nổi bật, đáng chú ý
26. synonymous (adj)	/sɪˈnɒn.ɪ.məs/	having the same meaning	đồng nghĩa
27. thermometer (n)	/θəˈmɒm.ɪ.tər/	a device used for measuring temperature, especially of the air or in person's body	nhiệt kế
28.trap (heat) (v)	/træp/	to keep something such as heat or water in one place, especially because it is useful	giữ nhiệt
29. unmistakable (adj)	/ˌʌn.mɪˈsteɪ.kə .bəl/	not likely to be confused with something else	không thể nhầm lẫn
30.volcanic aerosol	/ˈeə.rə.sɒl/	a mixture of particles and the liquid or gas emitted by volcanic eruptions	

31. volcanic eruption	/īˈrʌp.ʃən/	an occasion when a volcano explodes, and flames and rocks come out of it	sự phun trào nui lửa
32. wealth (n)	/welθ/	a large amount of money or valuable possessions that someone has	sự giàu có, sự dồi dào

## D. <u>Speaking</u>

#### PART 1

In this part, the examiner will ask the candidate some general questions like:

### Country

- Which part of the country do most people live in?
- What are the main industries in your country?
- Would you prefer to live in a hot or cold country?

#### Environment

- Do you think pollution is a big problem nowadays?
- What do you do to prevent our environment from pollution?
- Have you ever participated in any environmental events?

### PART 2

#### Describe an environmental problem that has occurred in your country.

You should say:

the cause of the problem

what effect it has had on your country

the steps, if any, that have been taken to solve this

And explain why you think this problem is so important to solve.

# PART 3

## Discussion

- Are people concerned about environment problems in your country?
- Do you believe climate change is a serious problem?
- Do you think it is the responsibility of governments alone to protect the environment?
- What measures can individuals take to protect the environment?
- Do you think large companies and business organizations should be more environmentally friendly? Why?