

Global warming IS human made (Sat 19 Feb)

WARM-UPS

CHAT: Talk in pairs or groups about global warming / penguins and polar bears / North Pole and South Pole / Kyoto Protocol / water / climate change / ...Change topic / partner frequently to energize the class.

GLOBAL WARMING: Spend one minute writing down all of the different words you associate with 'global warming'. Share your words with your partner / group and talk about them.

WORLD WEATHER: In recent years it seems the world's weather has gone crazy. Don't you think so? Make a list of examples of strange weather happening around the globe. Talk in groups about this.

MY COUNTRY: Talk about changing weather in your country. Are weather patterns the same now as ten years ago? Is this good? What will the weather be like in the future?

WHAT WE CAN DO: In pairs / groups, discuss whether you will carry out the following things to help slow down global warming in the next week (act soon!). If you will not do these things, say why:

- a. Walk instead of driving or taking public transport.
- b. Use public transport instead of driving.
- c. Write to US president George W. Bush urging him to sign the Kyoto Protocol.
- d. Start planning to replace some of your electricity supply with renewable energy, such as solar or wind power.
- e. Use the lights in your house less.
- f. Replace your refrigerator and other electrical appliances with more energy efficient ones.
- g. Plant a tree in the forest.
- h. Recycle everything you use.
- i. Donate money to organizations pushing for controls on global warming.

WARMING FUTURE: In pairs / groups, rank the following outcomes of global warming - most serious at the top.

- a. Polar bears and penguins will disappear
- b. Winters will be 10 degrees colder.
- c. Malaria will travel north, affecting Europe, North America, and northern Asia.
- d. Cockroaches will move to northern Europe, North America, and northern Asia.
- e. Africa will become hotter and suffer more droughts.
- f. Typhoons and hurricanes will become more powerful.
- g. Skin cancers will increase.
- h. Many countries will have no drinking water.
- i. Countries such as the Maldives, Holland and Bangladesh will disappear under water.
- j. Wars will start between countries fighting over water.

PRE-READING IDEAS

WORD SEARCH: Look in your dictionaries / computer to find collocates, other meanings, information, synonyms ... of the words 'human' and 'activity'.

TRUE / FALSE: Predict whether the following statements about the article are true or false:

- a. Global warming is caused by human activity, not natural environmental factors. T / F
- b. Clear evidence of human-produced warming is in the world's rivers. T / F
- c. Global warming is not likely to impact water resources around the globe. T / F
- d. Many world leaders have closed their ears to global warming. T / F
- e. The US government doesn't want to introduce expensive pollution controls. T / F
- f. Global warming is a natural phenomenon, caused by volcanoes and solar energy. T / F
- g. Scientists can simulate the likely future evolution of global warming. T / F
- h. Millions of people will be at risk of having inadequate water supplies. T / F

SYNONYM MATCH: Match the following synonyms from the article:

- | | |
|------------------|--------------|
| (a) findings | affect |
| (b) evidence | happening |
| (c) impact | doubt |
| (d) uncertainty | research |
| (e) pollution | consequences |
| (f) phenomenon | quicken |
| (g) compelling | sufficient |
| (h) implications | proof |
| (i) accelerated | emissions |
| (j) adequate | conclusive |

PHRASE MATCH: Match the following phrases based on the article

- | | |
|---|-------------------|
| (a) findings | resources |
| (b) natural environmental | evidence yet |
| (c) Researchers have found clear | controls |
| (d) water | immediately ahead |
| (e) Many world leaders have closed | risk |
| (f) pollution | evolution |
| (g) This is perhaps the most compelling | from a new study |
| (h) future | their ears |
| (i) In the decades | evidence |
| (j) putting millions of people at | phenomenon |

GAP FILL

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BNE: Findings from a new study _____ Friday proves that global warming is caused by human activity, and not by natural environmental factors. Researchers at the Scripps Institute of Oceanography have found _____ evidence of human-produced warming in the world's oceans that is likely to impact water resources in regions around the _____. This finding removes much of the uncertainty associated with _____ about global warming. Many world leaders have closed their ears to this fact so they don't have to limit their economic activity or introduce expensive pollution controls. This is one of the reasons America has not signed the Kyoto Treaty on climate change. The US government prefers to believe global warming is a natural _____, caused by volcanoes and solar energy. Professor Tim Barnett said, "This is perhaps the most compelling evidence yet that global warming is happening right now and it shows that we can successfully _____ its past and likely future evolution." Barnett says the results hold implications for millions of people in the near future. In the decades immediately ahead, the changes will be felt in regional water _____, including areas impacted by accelerated glacier melting in the South American Andes and in western China, putting millions of people at _____ without adequate summertime water. Perhaps now more countries will sign up to the Kyoto Protocol.

globe simulate risk released supplies phenomenon clear debates

DISCUSSION:

- a. What do you think of this article – are you worried?
- b. Are you pessimistic or optimistic about the future of our climate?
- c. Do you prefer hot or cold countries?
- d. What do you do to conserve energy?
- e. Do you waste a lot of electricity?
- f. Would you say you are very environmentally aware, or do you rarely think about the environment?
- g. Do you idle the engine of your car?
- h. What do you think of renewable energies, such as solar, wind or wave power?
- i. Isn't nuclear power best for the environment?
- j. Why doesn't US president George W. Bush sign the Kyoto Protocol?
- k. How would your life change if water became ten times more expensive?
- l. What would you do if your winters became 20 degrees colder and your summers 20 degrees hotter?
- m. How can we save the Maldives, Holland and Bangladesh from disappearing under water?
- n. Teacher / Student additional questions.

HOMEWORK

MY COUNTRY: Create a poster describing the weather patterns of your country, past, present and future.

LETTER TO GEORGE W.: Write a letter to US president George W. Bush telling him what you think of his decision to not sign the Kyoto Protocol.

INTERNET / WEB LINKS:

Scripps Institute of Oceanography web site:

<http://sio.ucsd.edu/>

The Kyoto Protocol:

<http://unfccc.int/resource/docs/convkp/kpeng.html>

A comprehensive and understandable account of the Kyoto Protocol:

http://en.wikipedia.org/wiki/Kyoto_Protocol

2001 Time Magazine article on why America won't sign:

<http://www.time.com/time/world/article/0,8599,168701,00.html>

VOA report on day 1 of the implementation of the Kyoto Protocol:

<http://www.voanews.com/english/2005-02-16voa100.cfm>

FULL TEXT

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