

Dandruff linked to global warming (Sun 3 Apr, 2005)

WARM-UPS

CHAT: Talk in pairs or groups about dandruff / skin flakes / fur / air pollution / bacteria / global warming / shampoo. Change topic / partner frequently to increase conversation.

DANDRUFF BRAINSTORM: Spend one minute writing down all of the different words you associate with dandruff. Share your words with your partner / group and talk about them.

DANDRUFF: In many countries dandruff is a social embarrassment: it is to be avoided at all costs. How about in your country? In pairs / groups, talk about dandruff and hair care. What problems do you have with your hair? Which shampoo and conditioner do you use? Do you use gel, wax, styling lotion? ...

HAIR: Look at this list of hair “problems” and talk about which ones you would be worried about. What advice would you give to someone with these “problems”?

- a. dandruff
- b. split ends
- c. receding hairline
- d. baldness (alopecia)
- e. gray hair
- f. greasy hair
- g. head lice
- h. itchy scalp
- i. bad hair days
- j. hairy back / chest / legs / arms / hands
- k. excessive nasal / underarm / pubic / facial hair

Talk about the three problems you would least like, and why.

PRE-READING IDEAS

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

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

- a. Global warming has increased the number of dandruff sufferers. T / F
- b. Dandruff increases global warming. T / F
- c. Flakes of skin and strands of fur are air pollutants. T / F
- d. Biological materials make up two point five per cent of all air pollutants. T / F
- e. Biological materials have an insignificant role in regulating the earth's climate. T / F
- f. Scientists who study climate change should think more about dandruff. T / F
- g. Dandruff can affect how rain and snow are formed. T / F
- h. A scientist advises us which shampoo is best for dandruff. T / F

SYNONYM MATCH: Match the following synonyms from the article:

- | | |
|--------------------|-------------|
| (a) brush | the heavens |
| (b) contributing | flick |
| (c) extensive | part |
| (d) make up | forecasting |
| (e) particles | hold |
| (f) role | constitute |
| (g) regulating | pieces |
| (h) predicting | controlling |
| (i) absorb | large-scale |
| (j) the atmosphere | adding |

PHRASE MATCH: Match the following phrases from the article:

- | | |
|----------------------------|-------------------------------|
| (a) brush | fifteen-year study |
| (b) This is a conclusion | an important role |
| (c) unexpectedly large | the journal <i>Science</i> |
| (d) conducted an extensive | heat |
| (e) air | amounts |
| (f) play | pollutants |
| (g) regulating the earth's | sunlight |
| (h) absorb | away some dandruff |
| (i) reflect | climate |
| (j) this month's issue of | reached by German researchers |

GAP FILL

Dandruff linked to global warming

BNE: The next time you brush away some dandruff from your _____, stop and think: you may be contributing to global warming. This is a conclusion _____ by German researchers, who report that unexpectedly large amounts of dandruff, skin flakes and fur are _____ air pollution. Ruprecht Jaenicke and his team, from Mainz University, conducted an extensive fifteen-year study of air samples from all over the world. He found that biological _____ make up twenty-five per cent of air pollutants, known as aerosols. Other biological pollutants, also called bio-aerosols, include bacteria, fungi, pollen and _____ from plants and trees.

materials
causing
shoulder
particles
reached

Mr. Jaenicke says these bio-aerosols _____ an important role in regulating the earth's climate and have been underestimated in _____ weather patterns and global warming. He says scientists should consider bio-aerosols more when predicting climate change. Bio-aerosols can _____ heat from the sun to warm the air and reflect _____ to cool it; they also affect how rain and snow are formed. Jaenicke's paper, "Abundance of Cellular Material and Proteins in the Atmosphere", is available in this month's issue of the journal *Science*. He does not tell us which shampoos to use to reduce _____ and global warming.

analyzing
play
sunlight
absorb
dandruff

HOMEWORK

- 1. VOCABULARY EXTENSION:** Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.
- 2. INTERNET:** Search the Internet and find information on global warming. Share your findings with your class next lesson.
- 3. DANDRUFF CONTROL:** Write a letter to your government (1) expressing your concerns about levels of dandruff in the air and (2) giving your solutions to control dandruff. In your next class other students will give you feedback on your solutions.
- 4. DANDRUFF:** Create an information poster on dandruff.

Find this and similar lessons at <http://www.BreakingNewsEnglish.com>

DISCUSSION:

- a. What was interesting in this article?
- b. Were you surprised by anything in this article?
- c. Were you amused by anything in this article?
- d. Do you suffer / Have you ever suffered ... from dandruff?
- e. What do you think when you see dandruff on someone's shoulder?
- f. Would you worry if you had dandruff?
- g. Do you think governments should act to control levels of dandruff in the air?
- h. How much time do you spend each day on your hair?
- i. Are you always happy with your hair?
- j. Is your hair easy to manage?
- k. What problems do you have with your hair?
- l. When you breathe, you are probably breathing in other people's dandruff. What do you think about this?
- m. Besides having dandruff and flakey skin, in what other ways do you add to global warming?
- n. Should we think more about bio-aerosols and their effect on earth's climate?
- o. Which is the better way to reduce global warming: bio-aerosol control, using less paper or bottle recycling?
- p. Would you like to read the full article in the journal *Science*?
- q. What do you do when you have a bad hair day?
- r. Which shampoo is best?
- s. Did you like this discussion?

TEXT

Dandruff linked to global warming

BNE: The next time you brush away some dandruff from your **shoulder**, stop and think: you may be contributing to global warming. This is a conclusion **reached** by German researchers, who report that unexpectedly large amounts of dandruff, skin flakes and fur are **causing** air pollution. Ruprecht Jaenicke and his team, from Mainz University, conducted an extensive fifteen-year study of air samples from all over the world. He found that biological **materials** make up twenty-five per cent of air pollutants, known as aerosols. Other biological pollutants, also called bio-aerosols, include bacteria, fungi, pollen and **particles** from plants and trees.

Mr. Jaenicke says these bio-aerosols **play** an important role in regulating the earth's climate and have been underestimated in **analyzing** weather patterns and global warming. He says scientists should consider bio-aerosols more when predicting climate change. Bio-aerosols can **absorb** heat from the sun to warm the air and reflect **sunlight** to cool it; they also affect how rain and snow are formed. Jaenicke's paper, "Abundance of Cellular Material and Proteins in the Atmosphere", is available in this month's issue of the journal *Science*. He does not tell us which shampoos to use to reduce **dandruff** and global warming.