

**L'usage de tout système électronique ou informatique est interdit dans cette épreuve**

*Traduire en français le texte ci-dessous.*

### **THE BIG MELTDOWN**

Here's a tip for anyone trying to figure out when and whether global warming might arrive and what changes it will bring: hop a plane to the Arctic and look down. You'll see that climatic changes are already reworking the far-north landscape. In the past two decades, average annual temperatures have climbed as much as 4°C in Alaska, Siberia and parts of Canada.

The ice forms as much as two weeks later in the autumn than it used to in Hudson Bay, creating a bewildering situation for some of the local wildlife. In parts of the wilderness, the signal is more clear: wetlands, ponds and grasslands have replaced forests. Permafrost provides stiffening for the coastline in much of the north; where thawing has occurred, wave action has caused severe erosion.

These isolated dramas play out far from the mid-latitudes of the planet, where the vast majority of people live, but they could soon have serious implications for all of us. What is really at risk in the Arctic is part of the thermostat of the earth itself. The difference in temperatures between the tropics and the poles drives the global climate system. The excess heat that collects in the tropics is dissipated at the poles. Much of the rest of the heat is conveyed as energy in the storms that move north from the tropics. If the poles continue to warm faster than the tropics, the vigor of this planetary circulatory system may diminish, radically altering prevailing winds, ocean currents and rainfall patterns. Already, severe and unpredictable storms across the northern hemisphere may be a sign that the global system is changing.

Even greater climate change could be on the way. Many scientists believe that the current warming is related to the increased burning of fossil fuels, such as gasoline and coal, which overloads the atmosphere with carbon dioxide and other greenhouse gases.

Without action, major changes appear inevitable. Should surface water temperatures in the high Arctic rise just a few degrees, the sea ice could disappear entirely, but even a partial melting could devastate the northern hemisphere's climate. The lighter freshwater wouldn't sink, interrupting the vertical circulation at a crucial point in the cycling of heat through the ocean.

A sudden chill would shorten growing seasons, and the resulting changes in precipitation could be even more damaging. Colder air is dryer air. It's not changes in temperature that bring down civilizations but changes in precipitation.

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