

# Climate about 8 pieces of evidence of climate



**ASSIGN  
BUSTER**

## CLIMATE CHANGE ASSIGNMENT PART A Go to: NASA climate change

evidence List and briefly describe about 8 pieces of evidence of climate

change 1. Global Temperature Rise - The planet's average surface temperature has risen about 1.1°C since the late 1900s, this change was driven largely by an increase of carbon dioxide and other emissions into the atmosphere. 2.

Warming Oceans - The oceans have absorbed lots of increased heat, with the top 700 meters of ocean showing warming of 0.302°F since 1969. 3.

Shrinking Ice Sheet - The Greenland and Antarctic ice sheets have decreased in mass.

Data from NASA's Gravity Recovery and Climate Experiment show Greenland lost 150 to 250 km<sup>3</sup> of ice per year between 2002 and 2006, while Antarctica lost about 152 km<sup>3</sup> of ice between 2002 and 2005. 4. Glacial Retreat -

Glaciers are retreating almost everywhere around the world — including in the Alps, Himalayas, Andes, Rockies, Alaska and Africa. 5. Decreased Snow

Cover - Satellite observations reveal that the amount of spring snow cover in the Northern Hemisphere has decreased over the past 500 years and that the snow is now melting earlier. 6. Sea Level Rise - Global sea level rose about 20 cm in the last century. The rate in the last two decades is nearly double that of the last century.

7. Declining Arctic Sea Ice - Both the extent and thickness of Arctic sea ice has declined rapidly over the last couple of decades. 8. Extreme events -

The number of record high temperature events in the United States has been

increasing, while the number of record low temperature events has been decreasing, since 1950.

The U. S. has also witnessed increasing numbers of intense rainfall events. 9. Ocean Acidification - Since the beginning of the Industrial Revolution, the acidity of surface ocean waters has increased by about 30 percent. This increase is the result of humans emitting more carbon dioxide into the atmosphere and hence more being absorbed into the oceans. The amount of carbon dioxide absorbed by the upper layer of the oceans is increasing by about 2 billion tons per year. PART B Go to: NASA Climate Time Machine and scroll along each of the four types of maps.

1. What appears to be happening to the Arctic Sea Ice? 2. Name 4 cities that would be under water if the sea level rose 6 m 3. In what year do CO2 levels seem to be highest? In which months do CO2 levels seem to be higher each year? 4. Looking at the 2007 Average Global Temperature map, which areas of the Earth seem to have increased in temperature the most? PART C Go to: <http://climate.nasa.gov/quizzes/index.cfm> and try at least 2 of the quizzes. Write down 2 interesting facts that you found out while completing the quiz here.

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