



# Climate Change: "Ask the Expert" School Resources

<http://climatechange.wmnet.org.uk>

## Weather and climate change:

*with Bill Giles OBE Former Senior BBC Weatherman*

*So that you can get the most out of the fantastic opportunity of questioning the experts we have assembled, SOME of the popular evidence related to climate change that is available on the international web.*

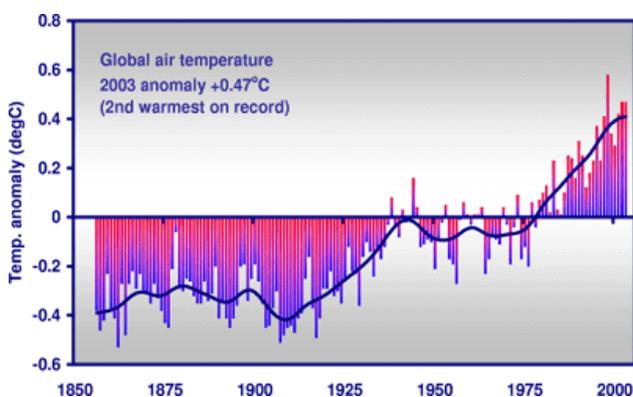
*You can use this information as a foundation for your questions to the experts, as a support to your examination work and to increase your world knowledge on a major issue of our time.*

*If you use this information in your exam work it is really important that you acknowledge the original source; some of those people have been working on that data for many years.*

### **What is global warming?**

Global warming is a term that is now a part of our culture. It is a fact that the temperature of the earth is rising.

\* Explore the evidence of measured global warming (1)



Source 2

Can you think of any way that the evidence may be flawed, or need further clarification?  
What is global warming caused by?

### **Is there any other evidence for global warming?**

Yes; researchers have presented evidence to show in a variety of ways that the phenomenon is occurring.

\* Find out about evidence of temperature changes in the USA over the last 100 years (3). Although, as it clearly points out, observed rises in mean temperature in some areas have been accompanied by falling temperature in other areas.

### **Is global warming responsible for climate change?**



Source 4

This is a controversial issue. Global warming is occurring, climate change is happening.

\* To what extent are the two directly linked?

Perhaps this is not an issue that is as important as the related problems we have to face now.

## *The weather and climate change – drought.*



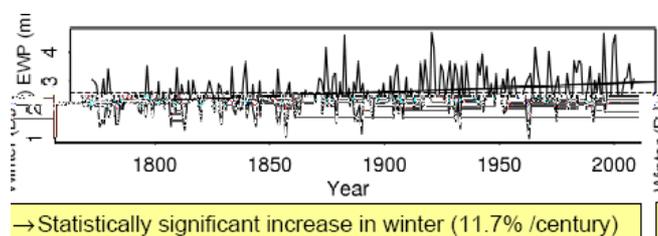
Source 5

Climate change may increase the variability of weather conditions and extreme events. Many dry land areas face increasingly low and erratic rainfall.

As a result of high rates of evapo-transpiration, some regions could be characterised by a higher frequency of drought or similar frequency of more intense drought than at present.

\* Are forecasts of drought useful – to whom?

## *The weather and climate change – flooding.*



Source 4

Annual rainfall in northern Europe has increased between 10% and 40% in the last 100 years (7).

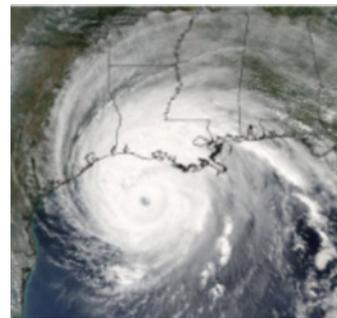
\* To what extent can we afford the economic and social cost?

### Sources

1. <http://www.cru.uea.ac.uk/cru/data/temperature/>
2. <http://www.cru.uea.ac.uk/cru/info/warming/>
3. <http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ClimateTrendsTemperature.html>
4. [http://www.nasa.gov/images/content/115334main\\_image\\_feature\\_329\\_ys\\_full.jpg](http://www.nasa.gov/images/content/115334main_image_feature_329_ys_full.jpg)
5. <http://www.fao.org/desertification/default.asp?lang=en>
6. [http://www.met.rdg.ac.uk/~swr01ms/content/md\\_talk\\_slides.pdf](http://www.met.rdg.ac.uk/~swr01ms/content/md_talk_slides.pdf) - search='increasing%20trend%20in%20
7. <http://www.climatehotmap.org/euroruss.html>
8. [http://www.nasa.gov/vision/earth/lookingatearth/h2005\\_rita.html](http://www.nasa.gov/vision/earth/lookingatearth/h2005_rita.html)
9. <http://www.ew.govt.nz/enviroinfo/hazards/naturalhazards/weather/climate.htm>
10. <http://news2.thdo.bbc.co.uk/1/hi/uk/969282.stm>

## *The weather and climate change – hurricanes.*

Source 8



This is a huge issue, as climates change – how will it affect our weather? A hurricane is a storm where the winds exceed 74mph.

In 2005 hurricane related wind strength was the highest ever recorded AND there was the highest frequency of such storms.

\* Was this a one off 'bad' year or are weather patterns changing?

## *The weather and climate change – extreme events the UK.*



Source 10



In the past two decades the UK has experienced extreme weather events. Flooding, heatwaves gales and a predicted very cold winter.

\* How important is it to have accurate weather forecasting?

\* How accurate can we expect the forecasting to be?