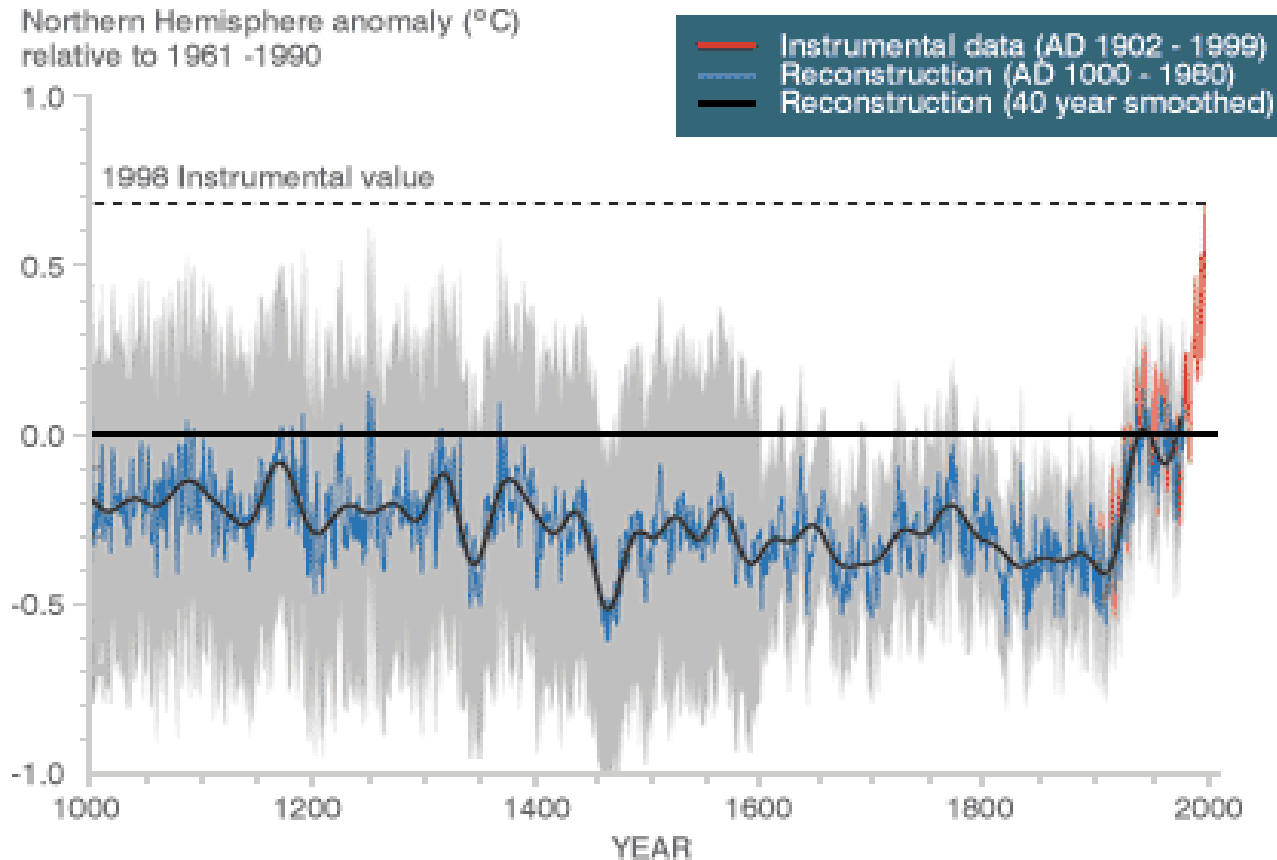


Schools & Climate change event

7th November 2007

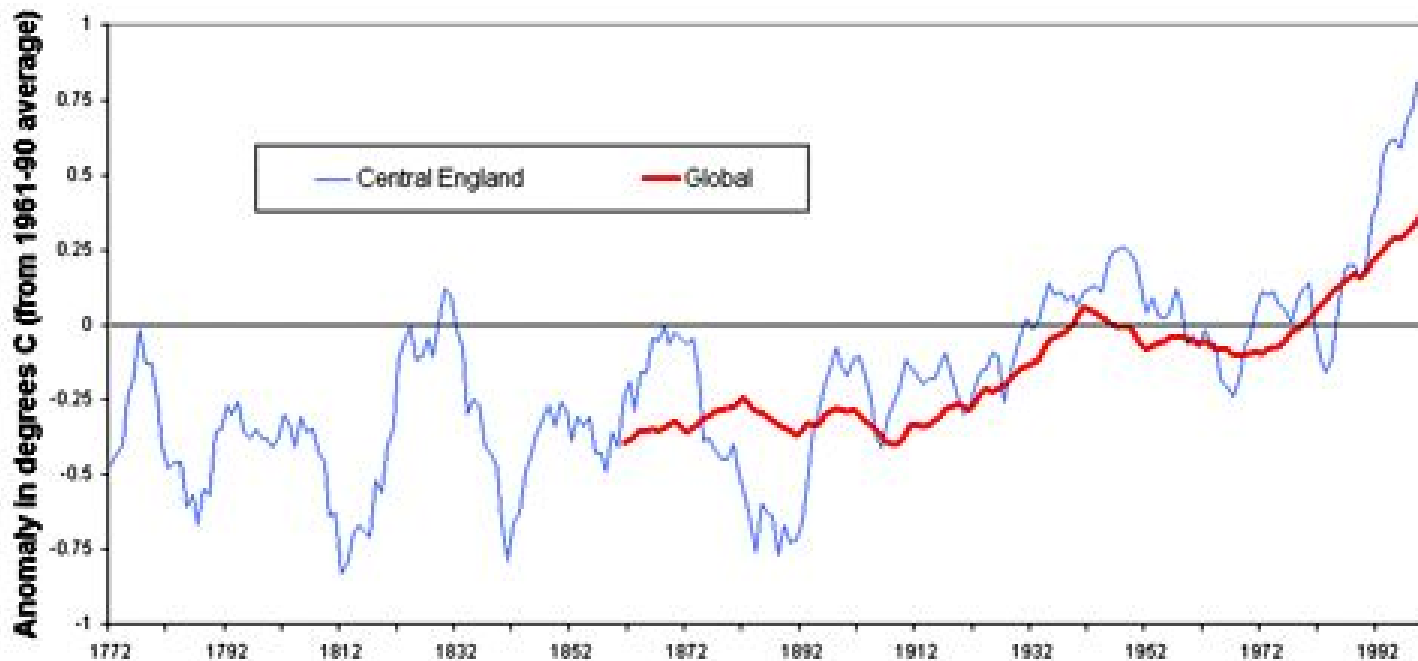
John Bibby, Senior Policy Officer,

The global hockey stick graph



Comparing Global/England

Figure 1.1 Global and Central England surface temperature anomalies: 1772-2000



These are smoothed figures based on 10 year moving averages

Source: Met Office, Hadley Centre for Climate Prediction and Research

Using the Al Gore Film 'An Inconvenient Truth'

- **Business as usual would bring a 3-5 degree rise**
- **We need to keep the rise to between 2-3 degrees**
- **We have 10 years to make a difference**
- **High Court Judgements**
- **More than Environmental challenge**
- **Technical Solutions are known**
- **Awareness and Lifestyle choices are the key**

What is happening now?

- **Temperature increase:**
 - 10 hottest years on record since 1991.
 - Temperatures have risen by 0.6° in the past century.
 - Mountain glaciers and snow cover have declined.
 - Arctic ice cover is shrinking (in depth and in extent).
 - Acceleration in sea level rise (10 - 20 cm in 20th century)
 - may be related to increase in global mean temperatures
 - Lengthening of growing seasons.
- **More extremes in weather patterns and changing precipitation:**
 - More intense and longer droughts have been recorded.
 - More intense rainfall [2007 summer the wettest on record]
 - 150 million people affected by floods world-wide (7 million in 60s).

Wetter Winters

- River flooding.
- Storm drains backing up.
- Soil water-logging.
- Damage to property from driving rain.
- Soil loss (water erosion).
- Fungal growth/disease.



Drier Summers

- Irrigation water shortages
- Conflicts over water use
- Not enough water to dilute pollution
- Contraction of clay and peat soils
- Soil won't absorb rainfall
- Soil erosion by wind
- Uncontrolled fires

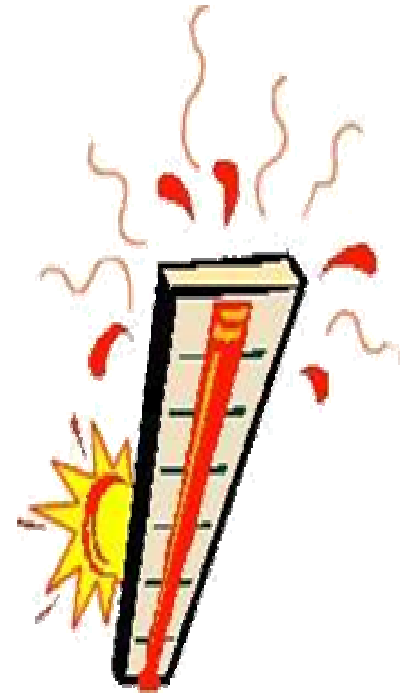




Health Impacts in UK

Human health

- Cold-related deaths down
- Heat-related deaths up
- Food poisoning up
- Vector & water-borne diseases may increase
- Malaria could re-establish
- Air pollution down, but summer ozone?



Economic Impacts

- **Future Proofing our decision-making**
- **Peak Oil / Oil dependency**
- **Carbon management impacts directly on budgets**
- **Early interventions make economic sense**

The big picture in the District

- **Supporting vulnerable young people**
- **Supporting a growing elderly population**
- **Raising educational achievement**
- **Building skills**
- **Developing the economy**
- **Building 50,000 more houses a year**

The Council and its partners environmental priorities

- Addressing climate change
- Reducing our use of natural resources
- Improving the neighbourhood environment

One of 5 strategic Partnerships in the District

- **Children and Young People**
- **Economy, Skills, Housing and Transport**
- **Safer Communities**
- **Health and Wellbeing**
- **Environment and Neighbourhoods**

Council Leadership Commitment to Eco-management & Audit Scheme accreditation by 2011

- Auditing of Environmental impacts
- Legislative compliance
- Drainage Diagrams
- Staff training
- System to deliver continuous improvement
- 3 services already accredited

**‘...and the greenest city in the UK is
Bradford’** Source Guardian 20th October, 2007

Based on:

- **Quality of the air**
- **Quality of the river water**
- **Waste per head**
- **Ecological impact**

**However, marked down on ‘Quality of Life’ and
‘Future Proofing’**

Council Leadership

Climate Change Action Plan

An 8-year programme to deliver transformational change:

- **Clear targets and resources for carbon savings and adaptation measures**
- **Carrying out a review of Sustainable Consumption**
- **Carbon Budgeting across the Council**
- **Influencing the sustainable design features of new buildings**
- **Supporting other organisations and individuals to play their part [Eco-city campaign & pledges etc]**

Council Leadership Carbon Management Programme

Key Target: 20% carbon dioxide savings by 2010/11

- **Energy in buildings**
- **Street lighting**
- **Fleet services and travel**

Plus keen to support schools and reduce waste management impacts

Big Picture for Schools

- **Health and safety**
- **Pastoral care**
- **Managing bad behaviour**
- **Providing for every child**
- **Raising levels of achievement & adding value**

- **Managing decision making through prioritisation**
 - Having accurate and robust information
 - Being clear how the school can make a difference
 - What provides the biggest bang for the buck

Why should schools take this on?

- **Schools account for 57% of the energy used by the Council**
- **Significant efficiency savings can come from little or no investment-more money available for raising attainment**
- **Research consistently confirms that young people are very concerned about the environment and climate change**
- **It enables 'whole-school working'**
- **Much good practice to benefit from and build on**
- **Have to develop a travel plan and comply with the Building Energy Performance Directive anyway**
- **'Eco-schools' designation is available**

Newhall Park Primary

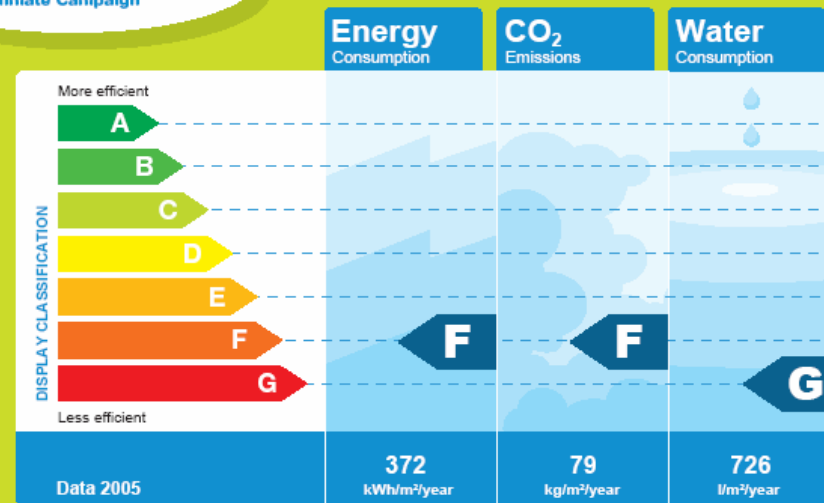
Newhall Park Primary - Cumulative Electricity Usage	2005/06	2006/07
Apr	17,850	16,258.41
May	36,080	33,718.10
Jun	52,061	48,553.22
Jul	68,575	65,469.19
Aug	80,205	76,011.00
Sep	95,792	91,465.57
Oct	113,790	111,518.69
Nov	134,350	130,887.13
Dec	153,182	150,354.19
Jan	172,751	168,015.19
Feb	190,052	184,787.19
Mar	209,381	203,356.19
	% Change	-2.9%

Newhall Park Primary - Cumulative Gas Usage	2005/06	2006/07
Apr	55,398	47,600
May	93,693	73,866
Jun	108,803	75,901
Jul	121,641	83,498
Aug	130,641	87,070
Sep	146,398	98,144
Oct	178,444	123,579
Nov	249,371	175,192
Dec	313,983	223,898
Jan	376,342	255,035
Feb	444,867	324,860
Mar	510,808	401,661
	% Change	-21.4%



Newhall Park Primary School

How does this building compare?



Towards a class A building

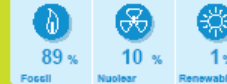
Simple actions

- Switch off lights in unoccupied rooms and areas.
- When the heating is on, keep windows and secondary glazing closed.
- Ensure that taps are not left running unnecessarily and report water leaks or dripping overflows.

Technical solutions

- Upgrade lighting systems to improve efficiency and/or control.
- Install an up to date Building Energy Management System.
- Fit digital timeswitches to electrical equipment that need not run during unoccupied periods.

Energy sources



Improving performance by one class could save annually:

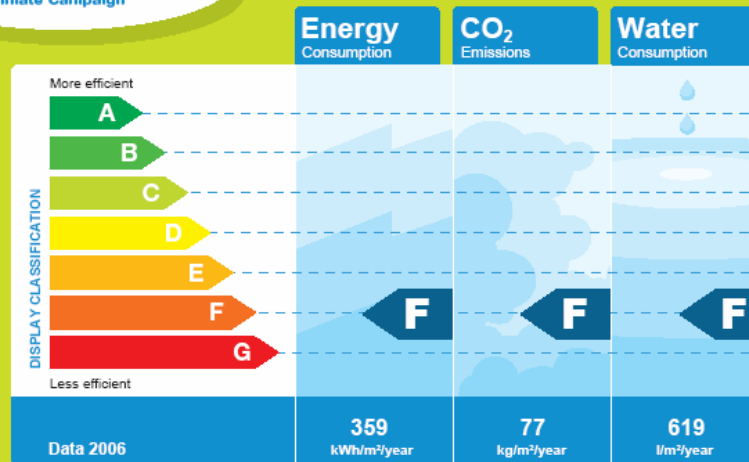




Newhall Park Primary School

2007

How does this building compare?



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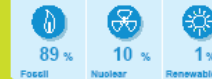
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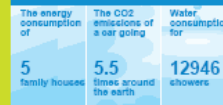
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Energy sources



Improving performance by one class could save annually:



For further information
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Facilities Management
Phil Jones
Tel: +44 (0)1274 432895
phil.jones@bradford.gov.uk



www.display-campaign.org

Support for Schools

- **Energy efficiency advice & support through the Energy Management Team**
- **Gap analysis support for Eco-schools accreditation from the EMAS Team**
- **The University and the Community Sector**
- **Nell Bank**
- **Lowerfields Primary**
- **Haworth Primary**
- **Woodville Project in Keighley**