

behind the news

Magazine



HOT TOPIC» CLIMATE CHANGE



PHONE ZONE
From brick to mini-computer



SALTWATER CROCS
Up close and personal



BEAUTY
Is it just skin deep?



SAY HELLO TO ...
Casey Stoner, motorcycling legend

PLUS

■ **D.I.Y.:**
Braided wristbands

■ **Cool School:**
Fitzroy Community School

■ **Cool Job:**
Fashion designer

PEARSON
Rigby

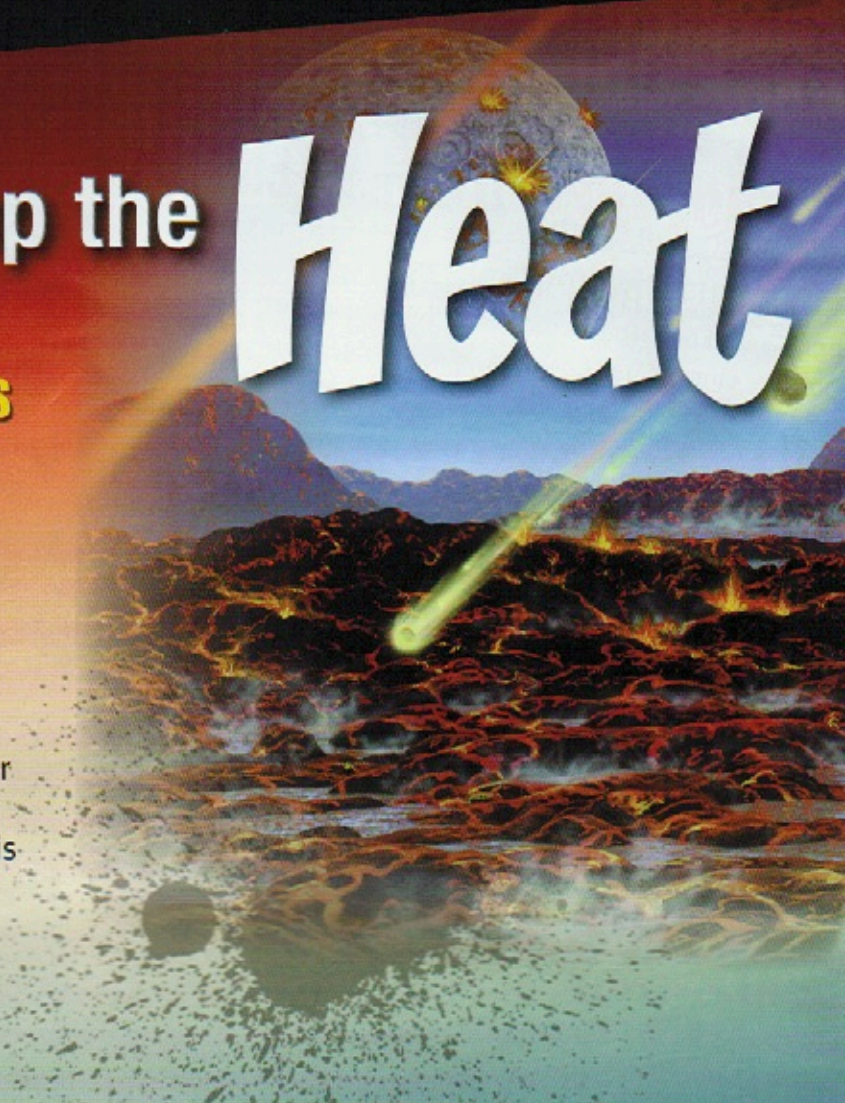


Turning up the Heat

EARTH'S CLIMATE HAS BEEN CHANGING SINCE THE PLANET WAS FORMED. MARIAN MCGUINNESS GOES BACK IN TIME TO TAKE THE WORLD'S TEMPERATURE.

Our galaxy had its own Star Wars about 4.5 billion years ago. Imagine the Sun being orbited at catastrophic speed by swirling ice and rock. Imagine explosion after explosion of colliding matter, smashing, scalding and melting together until the debris gathered into whirling balls as the planets were created.

After the Earth's blazing birth, its surface cooled for the next 700 million years. Rafts of solid rock drifted over seas of simmering magma. Gases hissed. Carbon dioxide, nitrogen and water vapour cloaked the Earth. As the temperature dropped, steam condensed into rain that fell to become our oceans. Earth's climate had begun.



Millions of years ago (BC)



Before 540

Earth is generally cooling, with warm periods and several ice ages, when ice reached almost to the Equator.

540

Earth has a warm, humid climate; life forms emerge.

350

Ice sheets reappear.

230

Earth is hot and humid with coal swamps and forests; dinosaurs emerge.

100

'Age of dinosaurs'

65

Catastrophe causes extinction of dinosaurs.

2 onwards

Ice ages and interglacial periods of warming.

30

Glaciers expand in Antarctica.

100

Sudden shift to glacial conditions. Ice sheets cover Northern Hemisphere; deserts form.

Thousands of years ago

14

Sudden warming—temperatures similar to today. Forests spread, ice sheets retreat, sea levels rise.

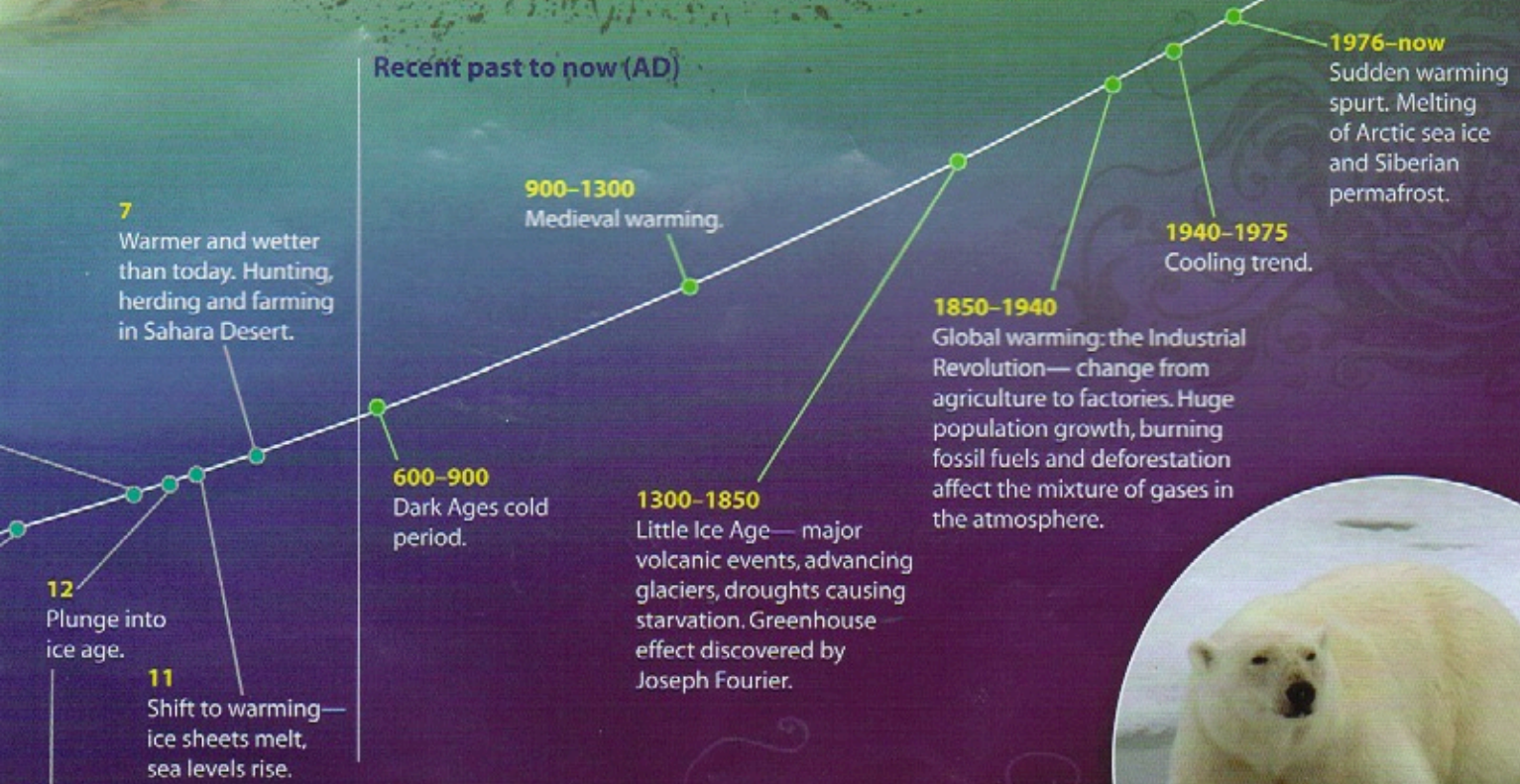
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Sea levels 100 metres lower than today.



What's all the fuss about global warming?

Global warming refers to the average increase in the Earth's temperature, causing changes in rainfall, rises in sea levels and problems for animals, plants and humans. Global warming and cooling have occurred naturally over millions of years. The fuss is about how human activity could be accelerating global warming by sending greenhouse gases into the atmosphere.



'For anyone who has wondered how global warming and reduced sea ice will affect polar bears, the answer is simple—they die.'

Richard Steiner, Professor of Marine-Biology, University of Alaska

HOW BIG IS YOUR footprint?



What impact are our eco-footprints having on our planet?

Marian McGuinness does a little 'sole searching'.

Look at your feet. Check out their size and see how much space they take up on the classroom floor. Now imagine if everyone in your class had feet the size and weight of a bus. Imagine the footprints you'd leave. Imagine the damage you'd do. Well that's what happens when countries get too big for their boots. They leave damaging **eco-footprints**.

If you're wondering what this means, just think of what you buy, what you eat, how you get around, the appliances you use and how much you throw away. Each one of these things depends on the Earth's natural resources.

Our ecological footprint is the amount of land and water it takes to support the way we live. It is one way of measuring the impact we are having on the world's environment.



Eco-footprints are measured in hectares of fertile land. One hectare is about the size of a soccer field.

Where do we fit in?

Globally, the average eco-footprint is 2.2 hectares. That means that every person in the world needs more than two soccer fields of good land to support their lifestyle. The problem is, we don't have that much. The planet only has 1.8 hectares of good land per person. So we're already using too much.

But not everyone has the same size footprint. Richer countries, where people have large houses filled with appliances, use lots of fossil fuels, so they have huge footprints. Poorer nations that rely less on fossil fuels have much less impact.

The average Australian's footprint is 6.6 hectares—three and a half times more than the average the planet can support. If everyone lived like us, we would need more than three planet Earths!

Here are the average footprints of people from just some of the world's countries.



Source: Ecological Footprint and Biocapacity (2006 Edition), Global Footprint Network

HOW CAN YOU REDUCE YOUR ECO-FOOTPRINT?

- ✓ Walk or cycle to school
- ✓ Eat fewer processed and packaged foods
- ✓ Plant a veggie garden
- ✓ Compost kitchen waste
- ✓ Recycle
- ✓ Mend things, don't throw them away
- ✓ Reuse water bottles
- ✓ Use energy-efficient light bulbs
- ✓ Turn off appliances