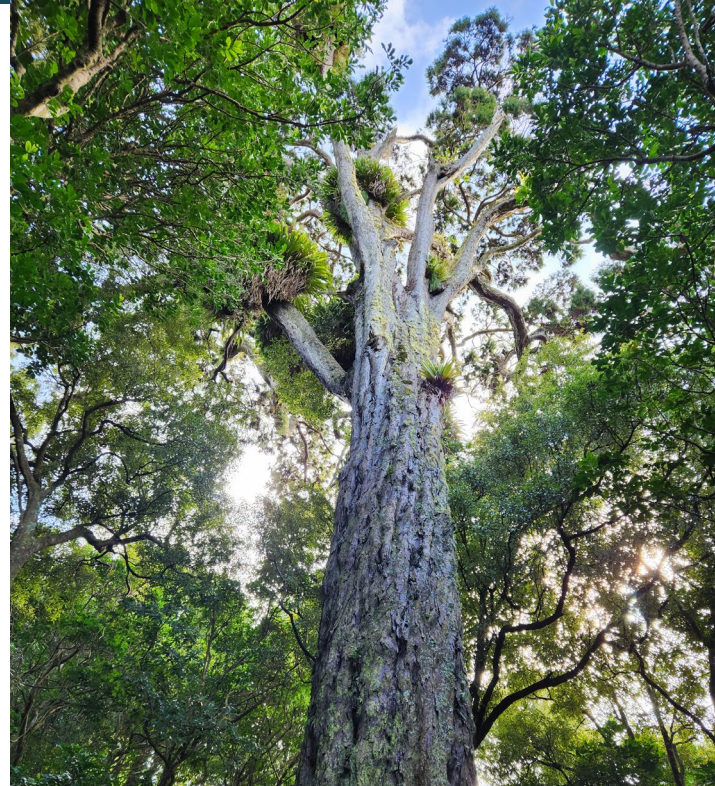




What is the big deal about climate change?



Te Rā (the Sun)

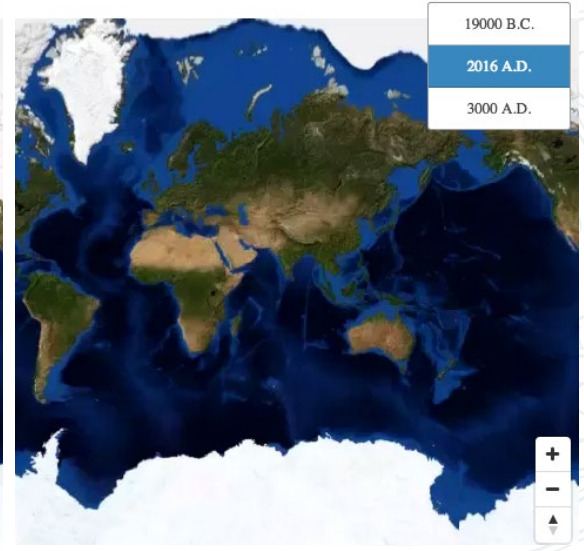
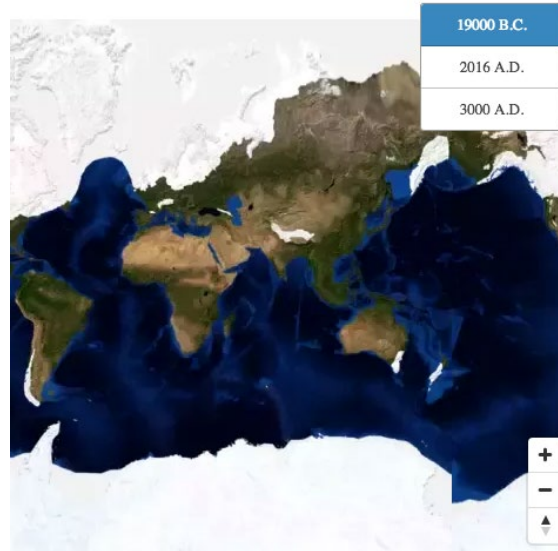
Te Rā is the primary heat source for the earth



Millions of years ago...

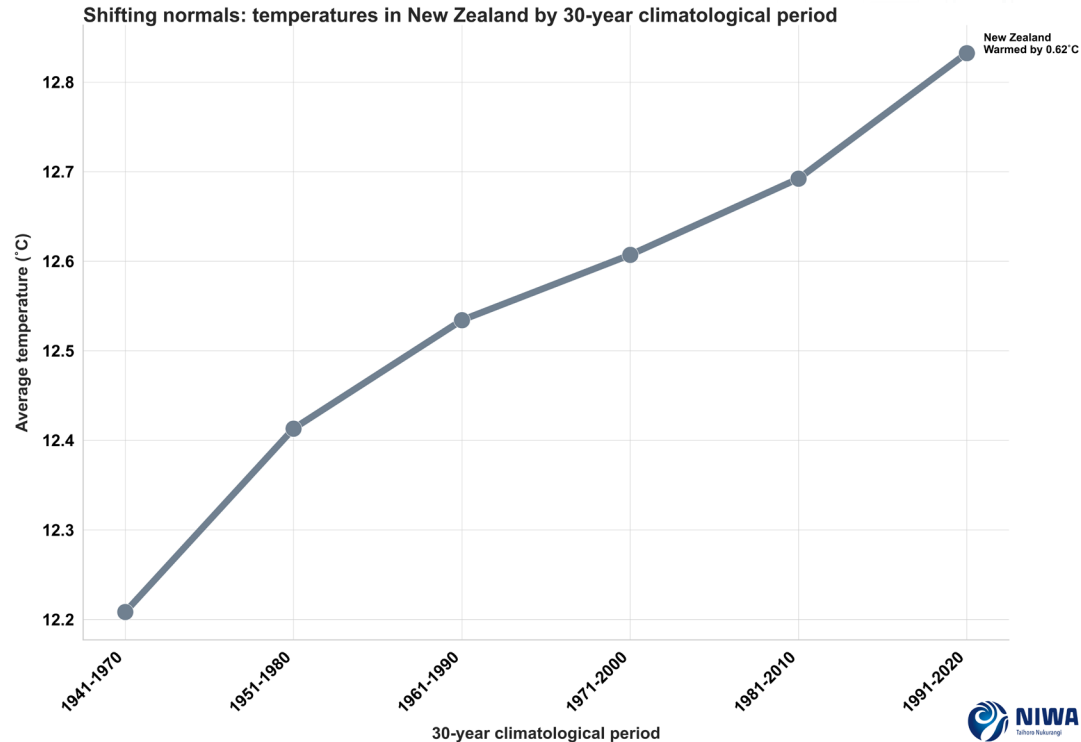
When dinosaurs
(and tuatara)
roamed the Earth,
it was much
warmer than it is
today.

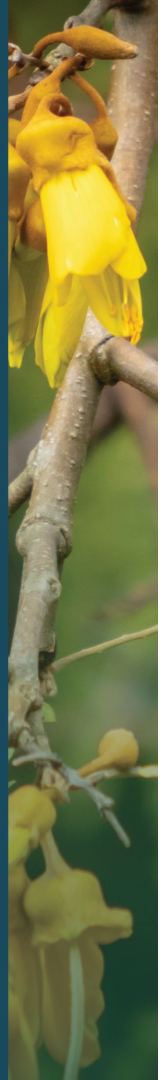
However, a few
thousand years
ago, the climate
was much colder.
Large parts of the
earth were
covered by ice.



Earth's temperature

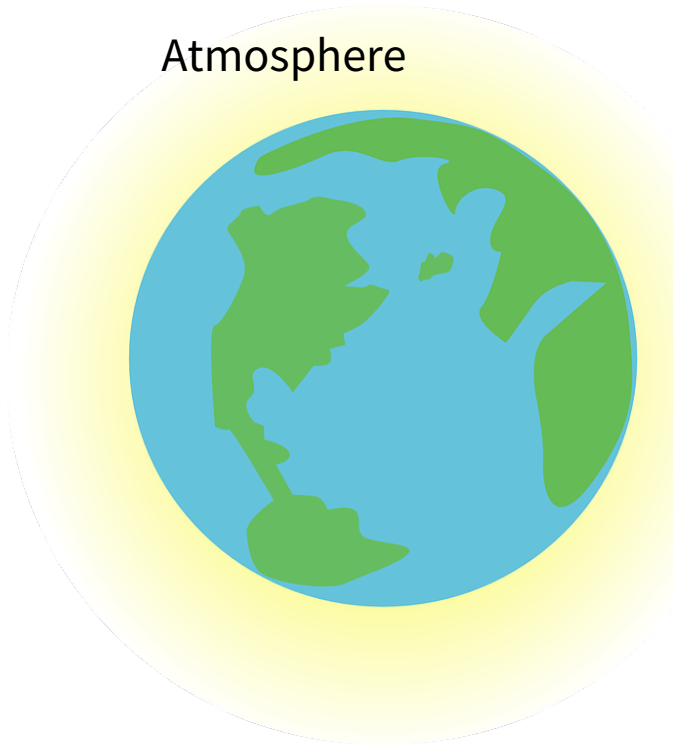
Over the past 100 years the temperature on Earth has gone up very quickly.



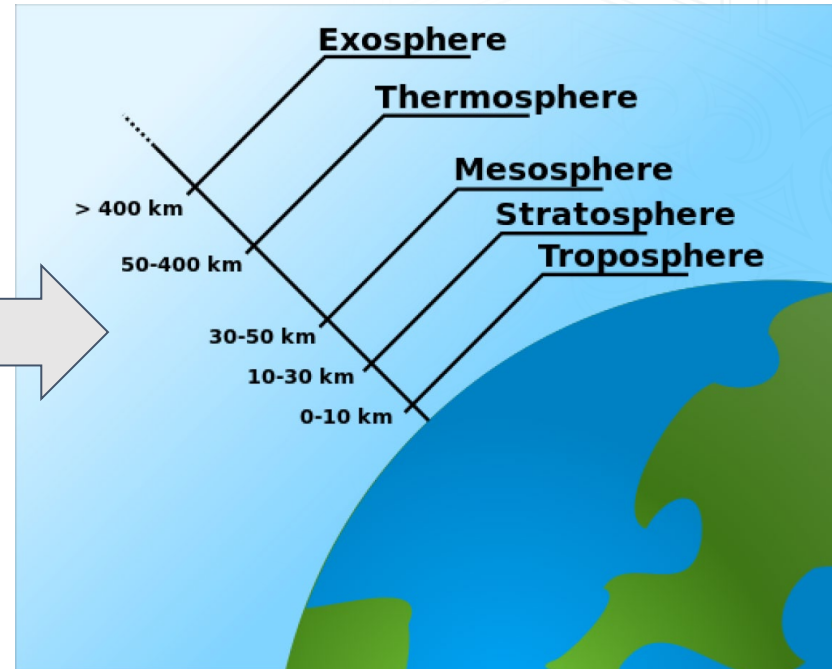


**What is
climate
change
and global
warming?**

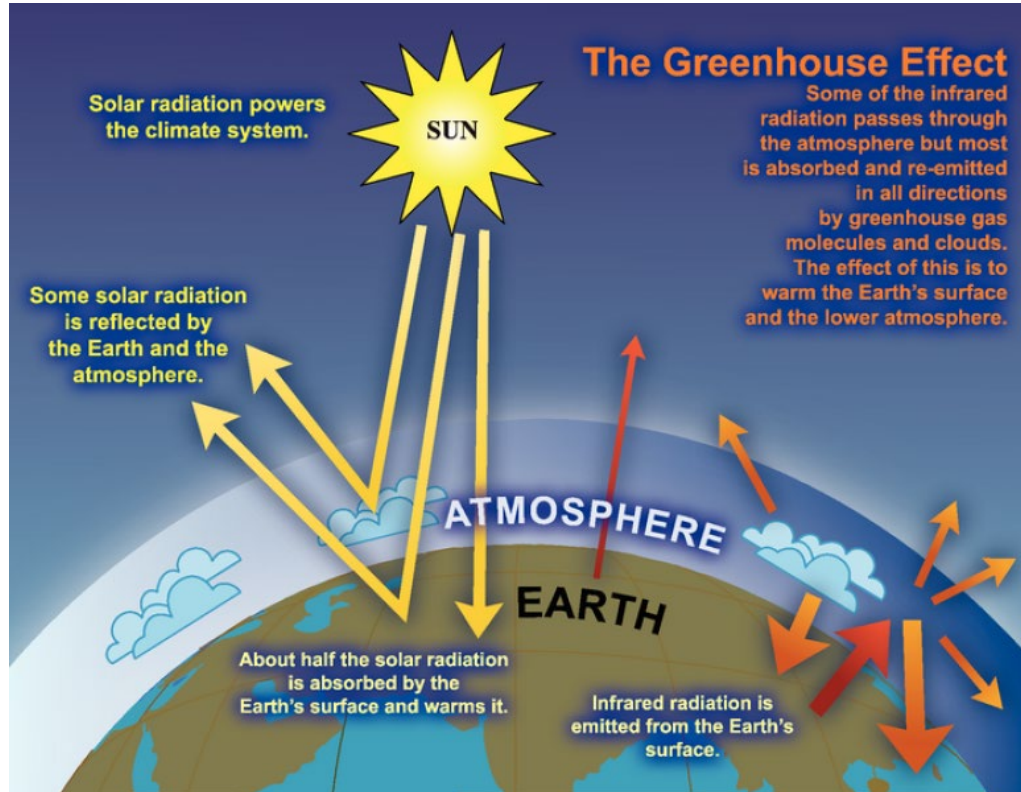
The atmosphere



Layers of the atmosphere



What is the Greenhouse effect?



Without the 'Greenhouse effect' Earth would be -18°C !

So cold, all water would freeze and life as we know it wouldn't exist.

Luckily, the atmosphere traps heat from the sun, keeping Earth a toasty – and liveable – 15°C on average.



**What does
this have
to do with
us?**

Carbon dioxide (CO₂)

Carbon dioxide is produced when we burn fossil fuels, such as coal, gas, oil and wood. Vehicles are the second biggest source of CO₂ emissions worldwide.



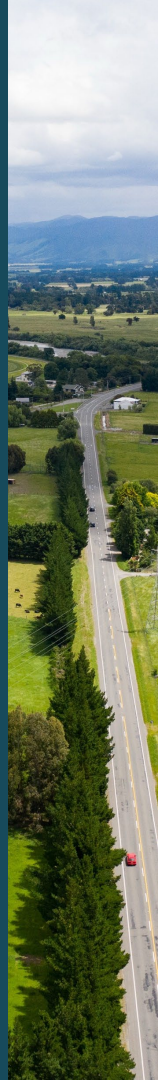
Power plants

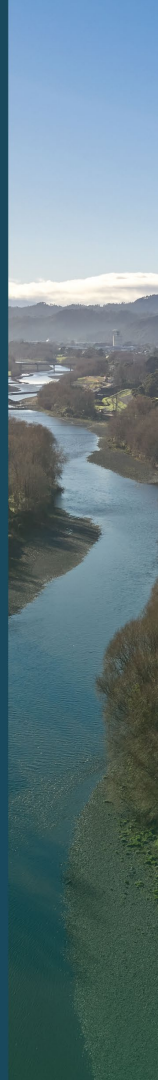
Power plants burn fuel to generate electricity. In New Zealand, we make 75% of our electricity using renewable sources, such as wind, hydro and solar.



Deforestation

Forests soak up carbon dioxide and produce oxygen. We need forests.
Around the world forests are cut down to make way for farms and cities.





**What
effect is
global
warming
having?**

There will be an increase in weather extremes



There will be an increase in weather extremes

Wairarapa drought, Feb 2013



Plimmerton beach at high tide, July 2016



There will be an increase in weather extremes

Increased flooding



Water shortages



Kiribati

In Kiribati the entire territory is **below 2m above sea level** (apart from the volcanic island of Banaba)



East Timor offers to take Kiribati climate change evacuees

Updated 19 September 2012, 10:55 AEST

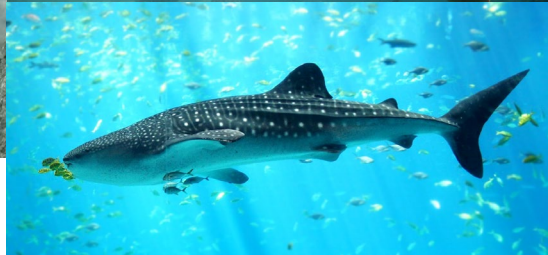
The President of Kiribati says East Timor has offered to give his people homes if climate change and rising sea levels forces them to abandon their Pacific atolls.

Print

Share this story



Some of the animals endangered by global warming



What can we do to help?



We can all play a part in looking after the Earth.

At home – quick wins:

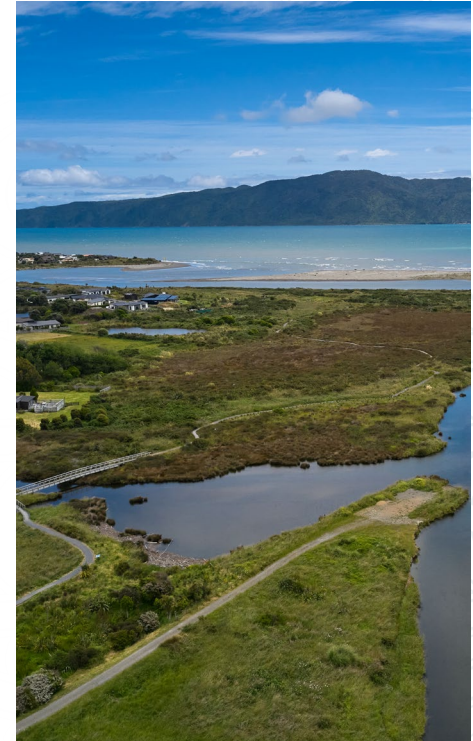
- **Burn food not fuel when you travel!**
 - Walk, scooter, cycle or use public transport.
 - Leave the car at home for short trips or carpool with friends to activities.
- **Shop sustainably –**
 - Buy in-season locally grown or produced fruit and vegetables.
 - Bring your own bags and avoid plastic packaging.
 - Buy less new ‘stuff’ – reduce, reuse, or repair what you have.
 - Eat less red meat – chicken, line-caught fish, vegetables and cereals are better.
- **Reduce waste –**
 - Recycle or reuse what you don’t need.
 - Try to buy only what you need so you eat food before it goes off.
 - Compost food waste – or start a worm farm.



We can all play a part in looking after the Earth.

In your house, community or region:

- **Plant trees** – at home or in community gardens and parks. Native plants and fruit trees are often available from community groups.
- **Beach or street clean ups** – reduce pollution in our oceans, and stormwater drains.
- **Use less electricity** –
 - Put on a jersey rather than turning up the heater.
 - Turn off the TV at the wall. Play outside instead of on devices!
 - Replace old light bulbs with LED bulbs.
- **Use less water** –
 - Take a quick shower instead of a bath.
 - Use rainwater to water the garden.
 - Learn about how technology and AI uses a lot of water.



Conclusion
