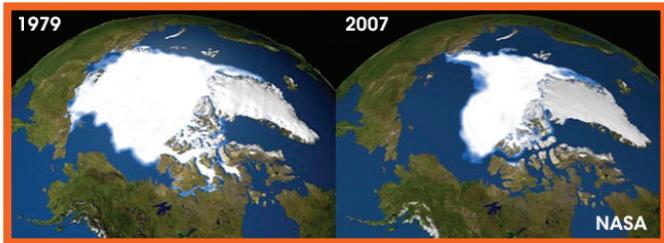


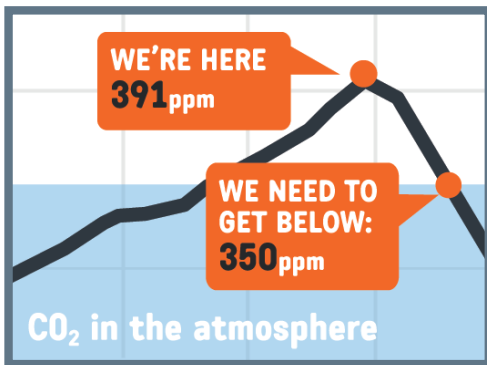
Impacts are speeding up

The Arctic is sending us the clearest message that climate change is happening now, and much faster than scientists once thought. In the summer of 2007, the extent of Arctic sea ice decreased by nearly 40% -- a shocking wake-up call for the world that caused many scientists to revise their estimates for the scope, scale, and speed of predicted climate change impacts.



350ppm: The safe level of CO₂ for our atmosphere

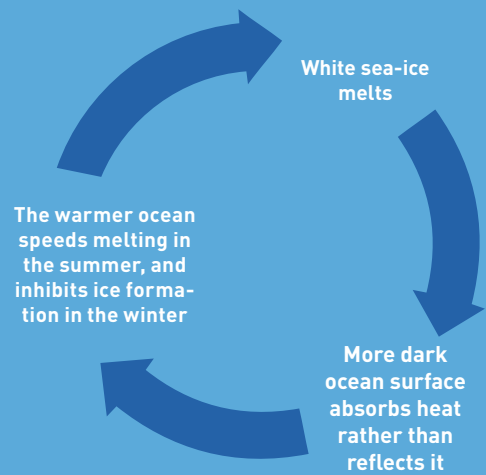
350 parts per million is the third and final number to remember, and it represents the safety zone for planet Earth. Above 350ppm we risk reaching dangerous 'tipping points' (see right). We don't know how long



we can stay above 350ppm—this number is far outside the range we've seen in our recorded history—but we do know that the smart thing would be get back to the safety zone as soon as possible.

What's a "Climate Tipping Point"?

This means a point in time when the earth's climate begins to change in ways we can't undo in our lifetimes - or possibly for many, many generations. Tipping points are fed by impacts that reinforce each other, called 'feedback loops'. For example, as Arctic sea ice melts, the darker ocean absorbs more sunlight, becomes warmer, and speeds melting. An example of a tipping point, is the potential melting of the Greenland or Antarctic ice sheet. These are dangerous events that we must avoid by getting below 350ppm as soon as possible.



Feedback loop example: the Albedo effect in the Arctic

"If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO₂ will need to be reduced from its current 389 ppm to at most 350 ppm."

—Dr. James Hansen, NASA

