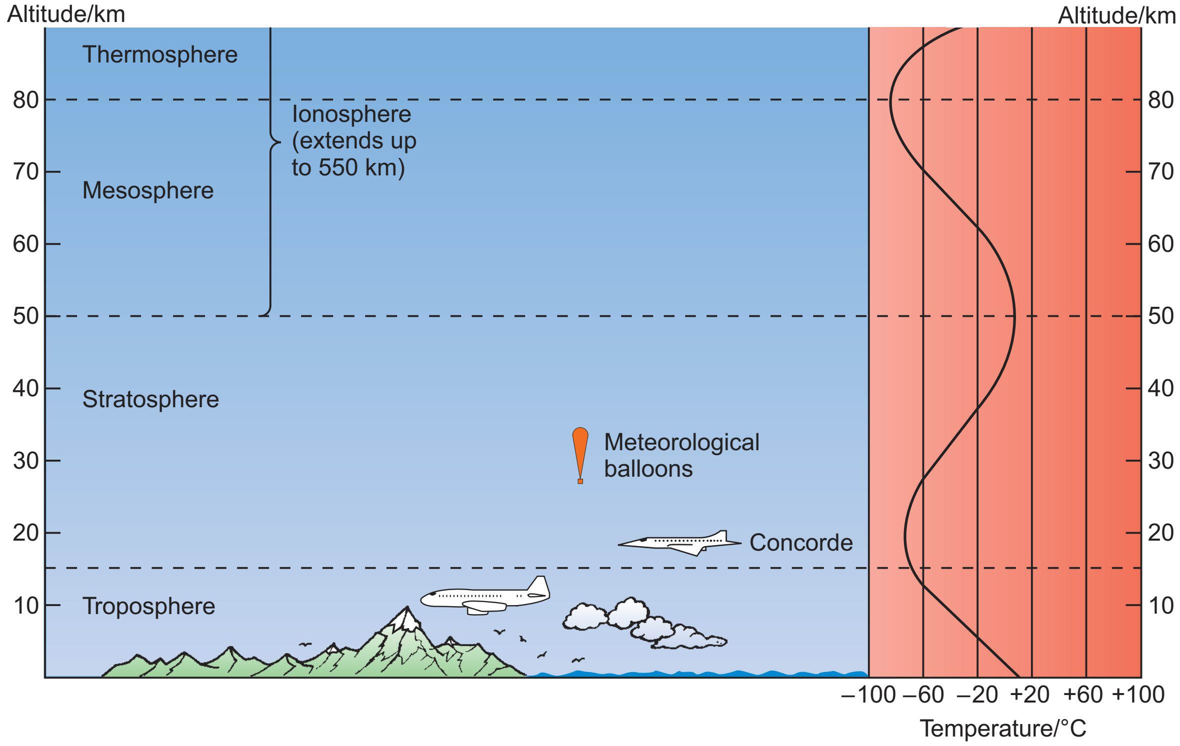
Figure 2 The structure of the atmosphere and the change in temperature with altitude.



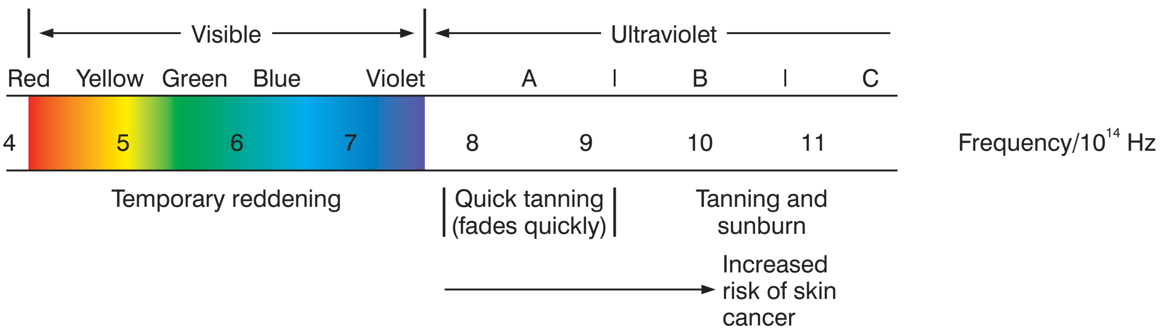


Figure 5 The effects of sunlight on the skin.

AS LEVEL

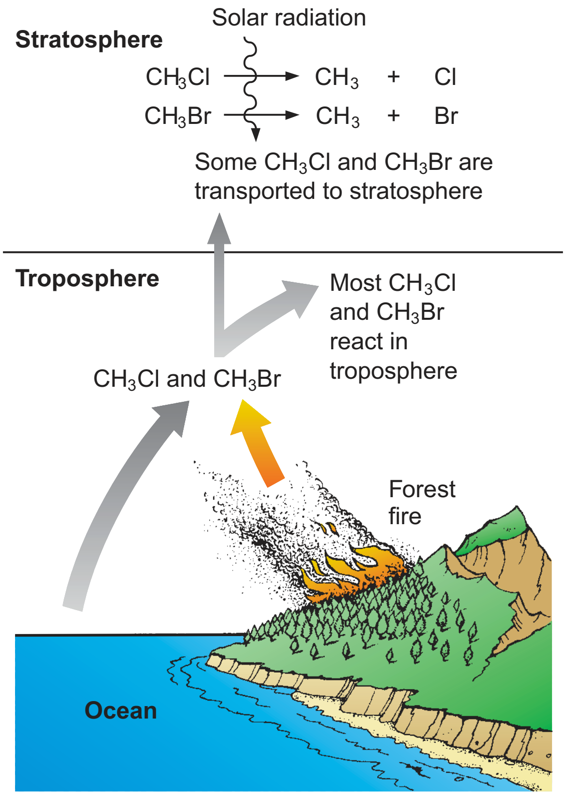


Figure 9 Chloromethane (CH_3Cl) and bromomethane (CH_3Br) are given off from the oceans and by burning coal and vegetation. They are responsible for the small amounts of naturally produced chlorine and bromine in the stratosphere.

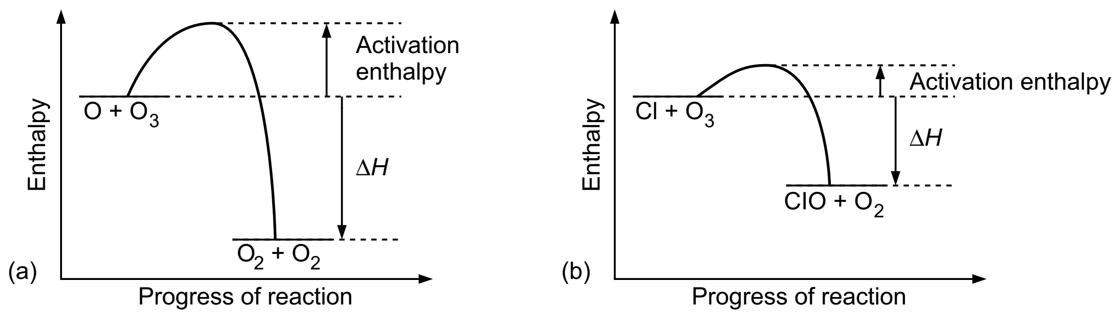


Figure 10 Plots of enthalpy changes as the reactants come closer together and form products.

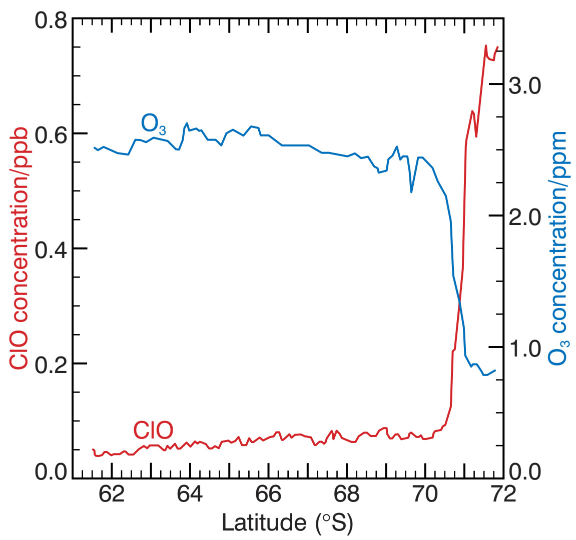


Figure 17 ER–2 aircraft fly through the stratosphere loaded with scientific instruments. These graphs show measurements of ClO radicals (in parts per billion) and ozone (in parts per million) recorded at 18 km altitude. (Note that the concentrations of the two species are about 10^3 different.) The measurements are convincing evidence that Cl radicals are involved in ozone depletion.

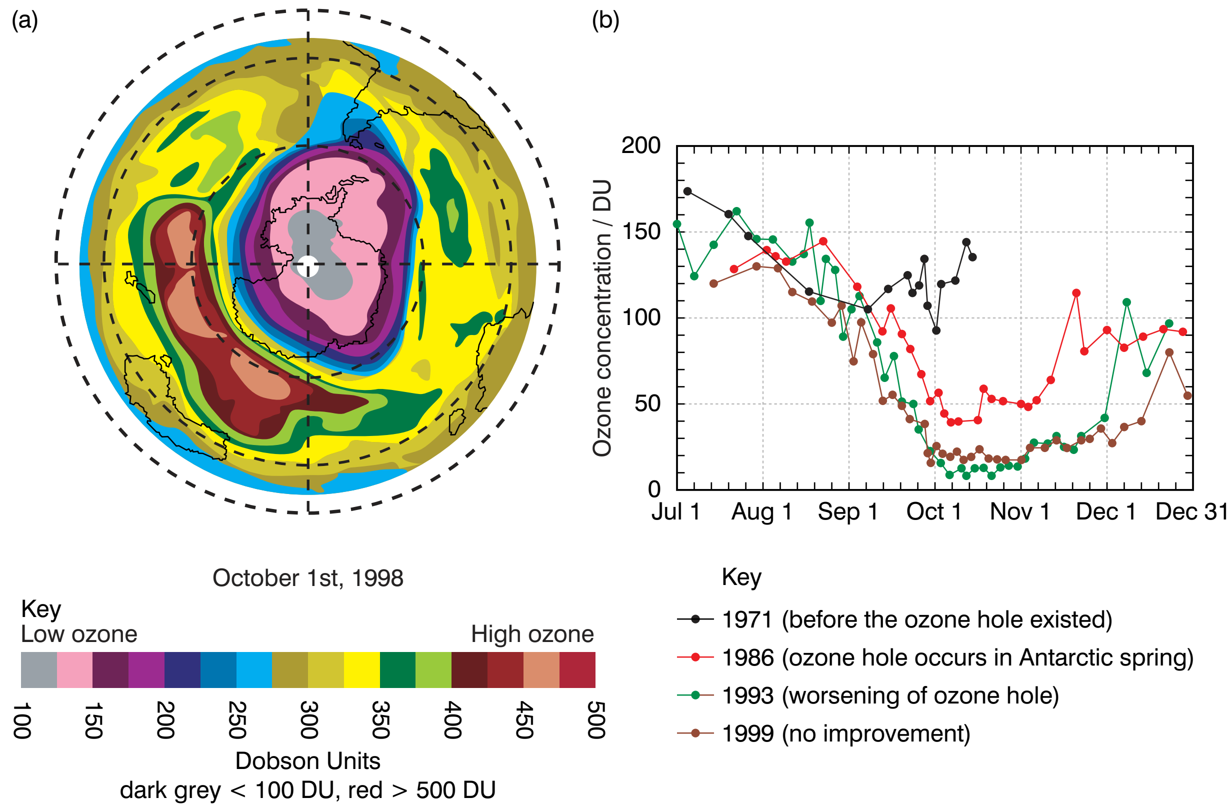


Figure 18 (a) Maps like this are obtained every day by satellite and can be seen on the web (http://toms.gsfc.nasa.gov/). (b) The graph shows how the ozone concentration varies during the year over the Amundsen–Scott South Pole Station.

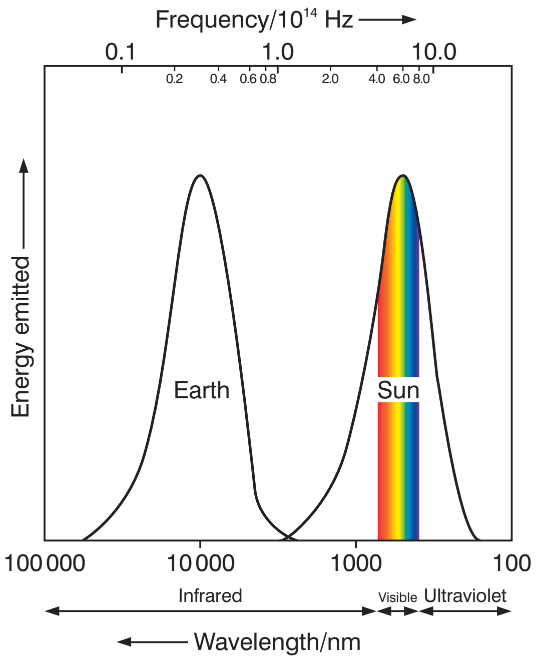


Figure 24 The radiation from the Sun which reaches the outer limits of the atmosphere and the radiation given off from the surface of the Earth (the frequencies and wavelengths are plotted here on a logarithmic scale, so each division is a factor of 10 greater than the one before).

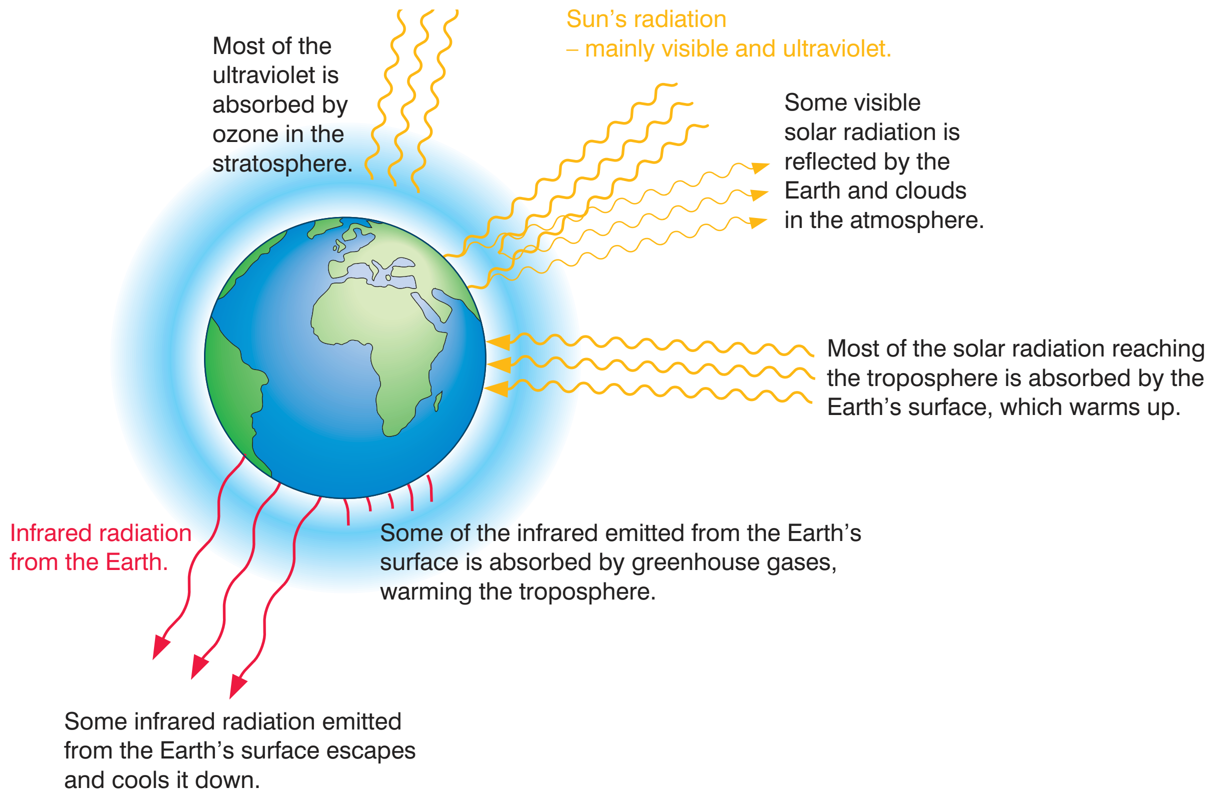


Figure 26 The Earth – input and output of energy.

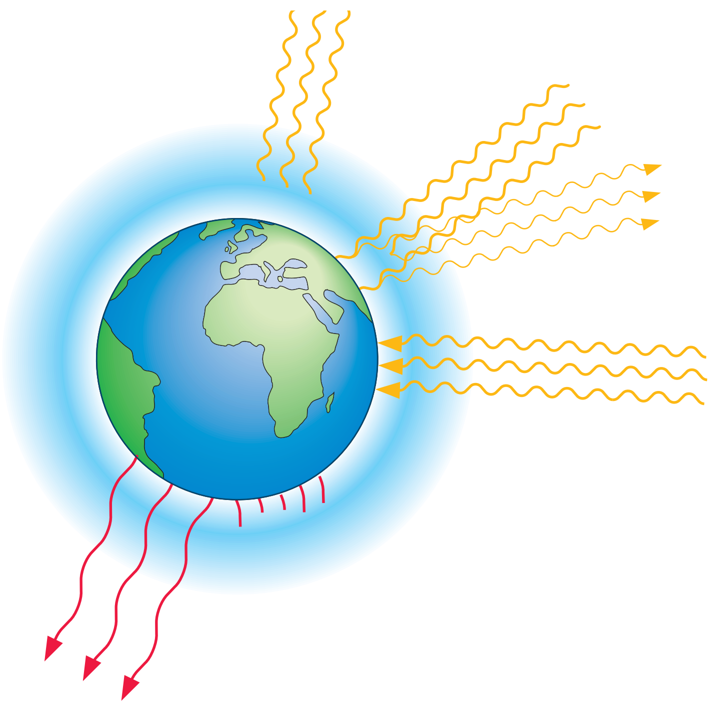


Figure 26 The Earth – input and output of energy.

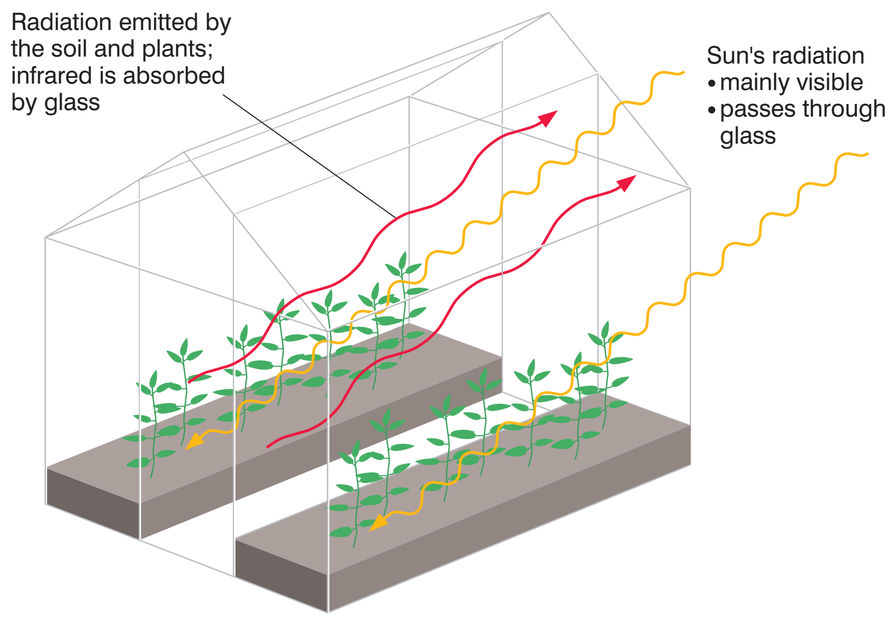


Figure 27 Greenhouse warming.

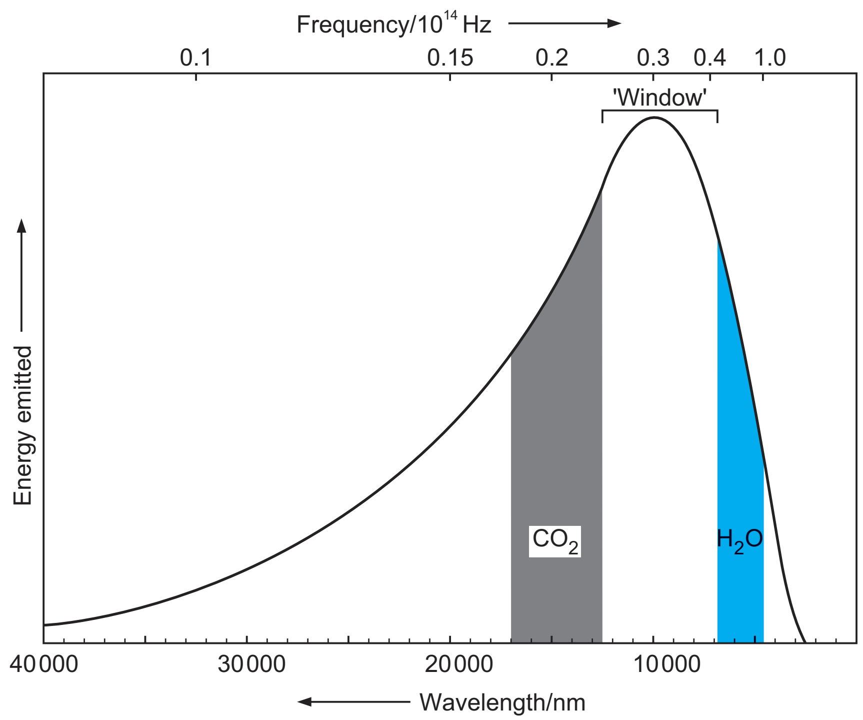


Figure 32 The Earth's radiation spectrum, showing the regions where CO_2 and H_2O absorb strongly.

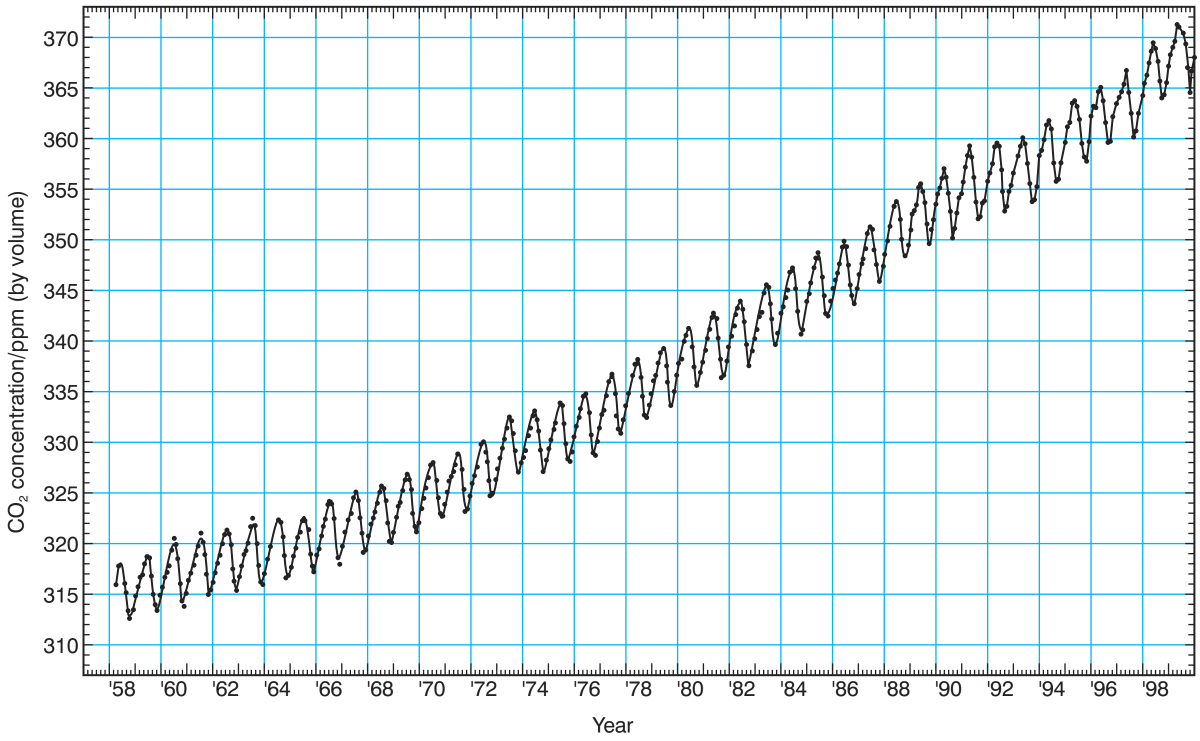


Figure 35 The build up of CO_2 in the atmosphere as recorded at Mauna Loa Observatory, Hawaii.

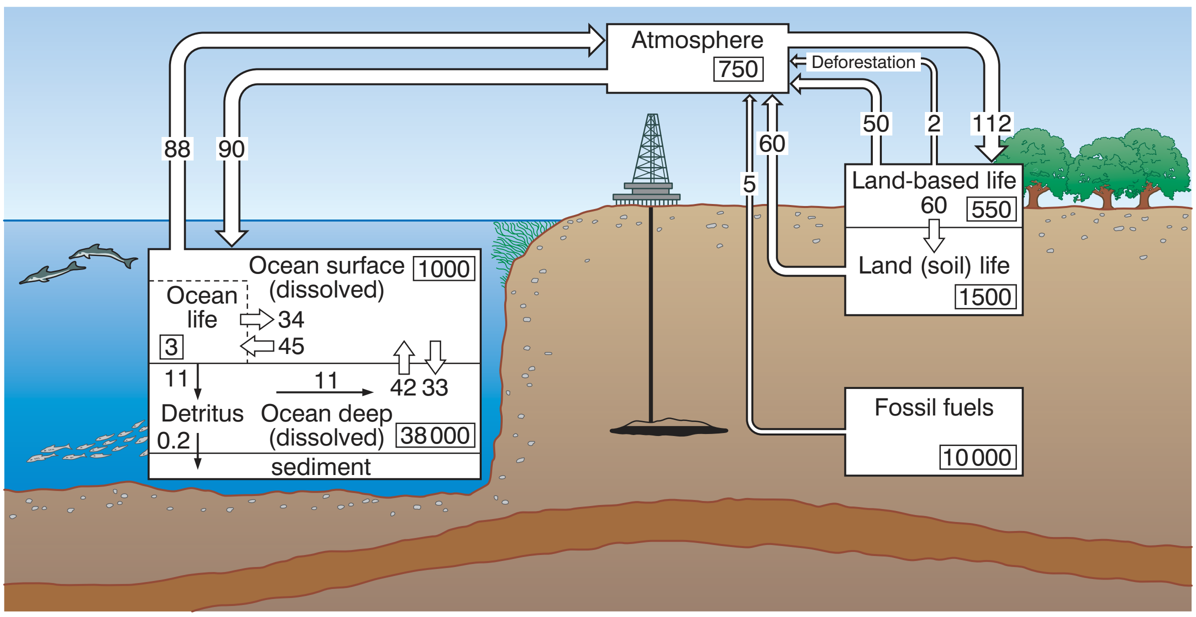


Figure 38 The global carbon cycle. The numbers in boxes are reservoirs*, showing the total mass of carbon (in Gt) in a particular part of the cycle; the numbers beside the arrows are* fluxes*, showing the rate of movement of carbon from one reservoir to another (in Gt year^{-1}). The amount of carbon in the atmosphere is growing at about 3 Gt per year, and that dissolved in the ocean surface at about 2 Gt per year.*