British Ecological Society

Manchester Metropolitan University

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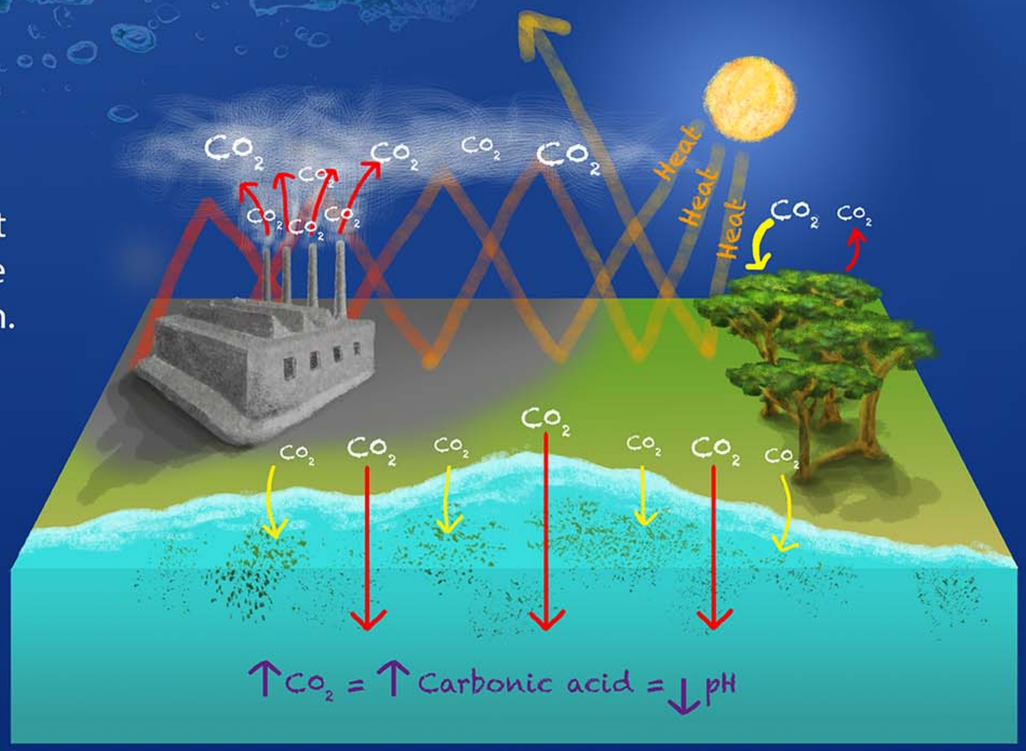
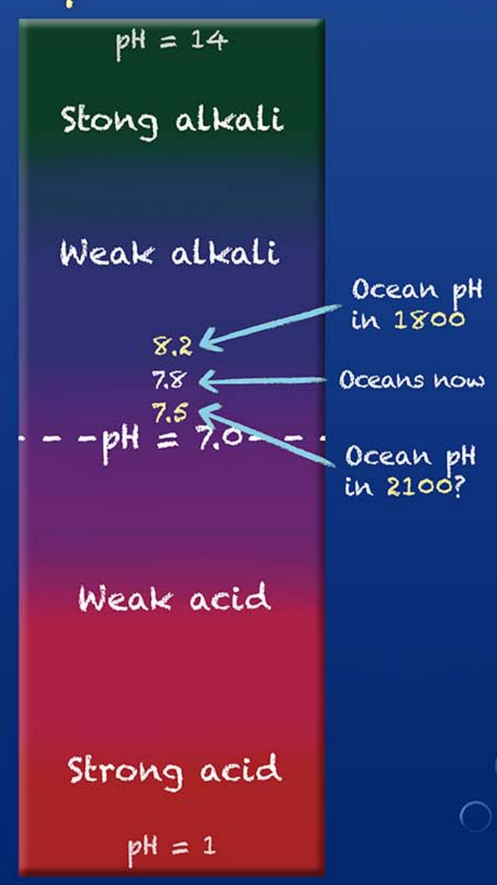
HOW INCREASING LEVELS OF CARBON DIOXIDE AFFECTS OUR OCEANS

What causes climate change & CO_2 build-up?

Carbon dioxide (CO_2) is a natural component of our air and is expelled into the atmosphere by many natural processes, such as respiration.

Factories, agriculture, energy production, and even driving your car releases extra CO_2 and other gases into the atmosphere, leading to a greenhouse effect on land and too much CO_2 in our oceans.

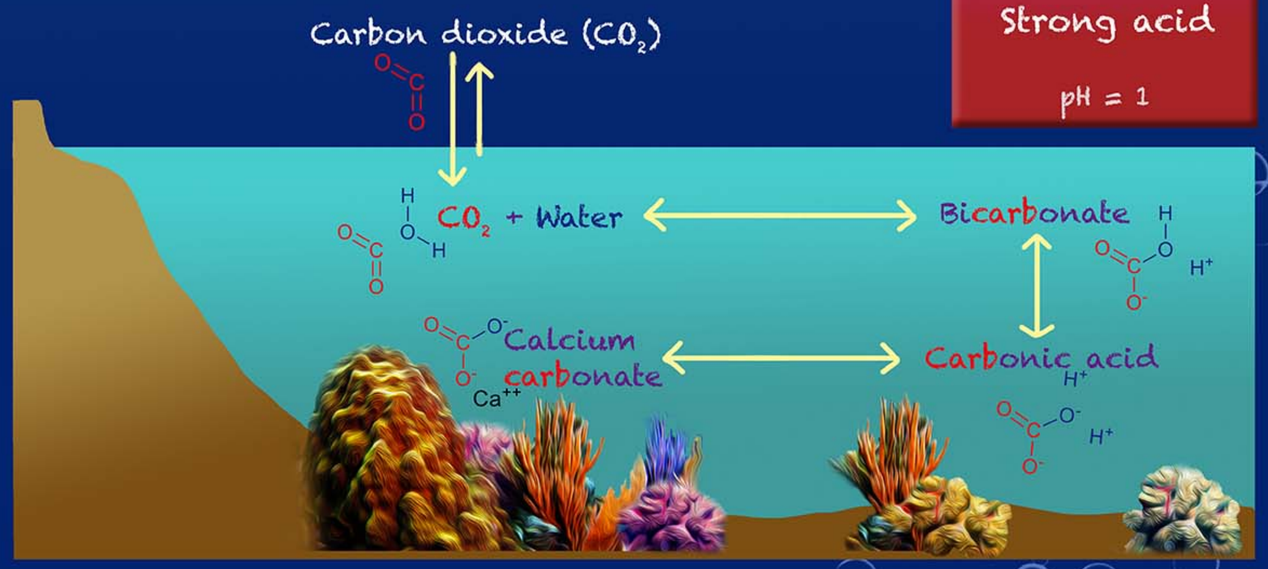




How does ocean acidification affect marine life?

When CO_2 molecules enter the ocean they mix with water molecules to form carbonic acid. The shells and exoskeletons of many marine organisms are made of calcium carbonate, but when water becomes too acidic, the calcium carbonate exoskeletons dissolve, killing the organisms and making the water even more acidic...

Higher ocean acidity will lead to the loss of corals and many other marine organisms, and can even alter the behaviour of fish such as clownfish.



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