

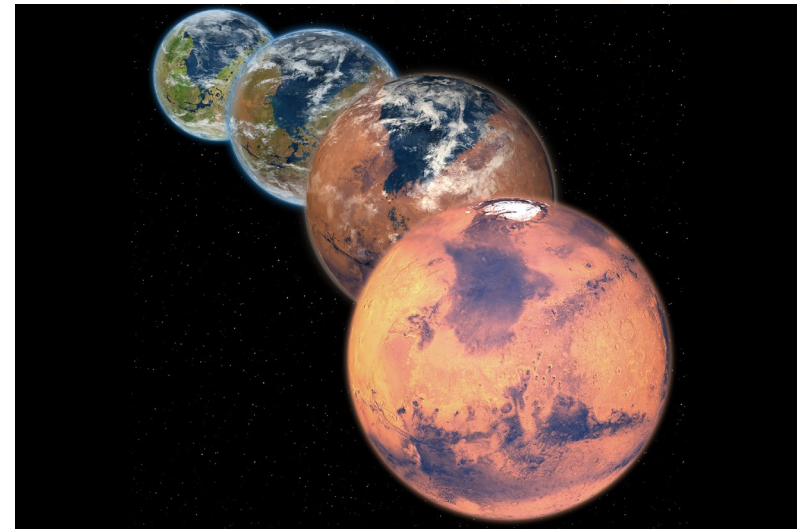


# Where did Mars' carbon dioxide go?

Slide by Neil Goalby. Available from [rsc.li/4jTq0ty](https://rsc.li/4jTq0ty)

Evidence shows that water once flowed on Mars. Scientists think that for Mars to have been warm enough to have liquid water, it must have had a much thicker atmosphere with high levels of carbon dioxide to produce a strong greenhouse effect. This presented a mystery: where did all that CO<sub>2</sub> go?

Nasa's Curiosity rover has now discovered high concentrations of pure iron carbonate in rock samples from a crater. This suggests that the carbon dioxide was locked up in these carbonates, causing a decrease in atmospheric CO<sub>2</sub>.



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*Shifting from blue to red. Was Mars a watery world like Earth?*

## Questions

1. Why do scientists think Mars was warmer in the past?
2. Describe how carbon dioxide causes the greenhouse effect.
3. Explain how carbonate rock formation affects carbon dioxide levels in an atmosphere.