

# Classroom Activity

## 10 Big Question: Why does climate change?

### Acidification

The acidity of a fluid (also known as pH) is the number of protons, which are hydrogen atoms with positive charge ( $H^+$ ). The basic molecular reaction driving ocean acidification is:  $CO_2$  (carbon dioxide) +  $H_2O$  (seawater) =  $H_2CO_3$  (carbonic acid) =  $HCO_3^- + H^+$

- See documentary “Acid test: the global challenge of ocean acidification” by the *Natural Resources Defense Council* — <http://www.nrdc.org/oceans/acidification>
- Read friendly-reading overview on ocean acidification (free download) by the *Royal Society* — <http://royalsociety.org/policy/publications/2005/ocean-acidification>
- Learn why ocean acidification is known as the “evil twin” from *Science* podcast by ocean policy expert Edward Miles — <http://www.sciencemag.org/news/2010/02/podcast-confronting-ocean-acidification>
- See how children animate the issue of ocean acidification by *Ridgeway School* (Plymouth, UK) - featured by the European Project on Ocean Acidification — <http://www.epoca-project.eu/index.php/what-is-ocean-acidification/the-other-co2-problem-animation.html>

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