

# STUDENT SHEET 2a

## Ocean acidification data and question sheet

Year	Annual Mean Ocean pH	Annual Mean Ocean pCO <sub>2</sub>
1989	8.107	332
1990	8.119	323
1991	8.111	329
1992	8.107	333
1993	8.110	332
1994	8.107	334
1995	8.104	335
1996	8.096	342
1997	8.100	340
1998	8.094	348
1999	8.095	348
2000	8.087	354
2001	8.087	354
2002	8.089	352
2003	8.093	348
2004	8.091	349
2005	8.083	358
2006	8.087	354
2007	8.077	364
2008	8.079	362
2009	8.076	368
2010	8.078	365
2011	8.078	364

*Data from the Hawaii Ocean Time-series*

### Answer all questions:

1. What is meant by the annual mean?
2. Use the above data to produce an appropriate graph of the trend in Ocean pH using Student Sheet 2b.
3. Draw a best-fit line through the points that shows the overall direction of the data.
4. Use the above data to produce an appropriate graph of the trend in Ocean Carbon Dioxide using Student Sheet 2c.
5. Draw a best-fit line through the points that shows the overall direction of the data.
6. Can you suggest a possible reason for any connection between the pattern shown by the two best-fit lines?