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|  |  |
| --- | --- |
| **Year** | **Atmospheric CO2 Concentration (ppm)** |
| 1960 | 316 |
| 1965 | 319 |
| 1970 | 325 |
| 1975 | 331 |
| 1980 | 338 |
| 1985 | 345 |
| 1990 | 354 |
| 1995 | 360 |
| 2000 | 369 |
| 2005 | 378 |
| 2010 | 389 |
| 2015 | 400 |

|  |  |
| --- | --- |
| **Year** | **Change in Global Temperature from the 1951-1980 Average (oC)** |
| 1950 | -0.18 |
| 1955 | -0.14 |
| 1960 | -0.03 |
| 1965 | -0.10 |
| 1970 | 0.03 |
| 1975 | -0.01 |
| 1980 | 0.28 |
| 1985 | 0.12 |
| 1990 | 0.44 |
| 1995 | 0.46 |
| 2000 | 0.42 |
| 2005 | 0.69 |
| 2010 | 0.72 |
| 2015 | 0.87 |

|  |  |
| --- | --- |
| **Water Temperature (oC)** | **Carbon Dioxide Dissolved in Water (g CO2/kg H2O)** |
| 0 | 3.4 |
| 10 | 2.5 |
| 20 | 1.7 |
| 30 | 1.3 |
| 40 | 0.95 |
| 50 | 0.75 |
| 60 | 0.6 |

1. What has happened to the atmospheric levels of carbon dioxide?
2. What has happened to the global temperature over time?
3. What happens to water’s ability to absorb carbon dioxide as it heats up?
4. How does increased carbon dioxide level affect global temperature?
5. Predict what would happen to ocean temperatures as global temperature increases.
6. Explain how the oceans have contributed to the global temperature change since 1950. Make sure to discuss carbon dioxide and water temperature in your explanation.