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| **Topic** | Bonding | **Level** | GCSE/A Level |
| **Outcomes** | 1. To identify the bonding and structure in a range of different substances | | |

**Chemical Bonding: why are substances so different?**

I am always amazed at how chemistry can create so many different types of substance and material, when everything is essentially made from the same basic elements. Take diamond and coal; one is worth thousands, whilst the other would definitely not impress on a wedding day and yet both are made from carbon.

Look at this picture below.

How many different types of bonding and structure are in this picture? Fill in the table to see how many you can find.

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| **Item** | **Chemical** | **Bonding** | **Structure** |
| *Pool water* | *H2O* | *Covalent* | *Simple molecular* |
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Progress: further resources on bonding are available here:

<http://www.thescienceteacher.co.uk/bonding/>