**Chemistry 2.4 AS 91164** Demonstrate understanding of bonding, structure, properties and energy changes

Writing Excellence answers to **Molecule Polarity** questions



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| **Molecule Polarity QUESTION** |
| **Question:**  The Lewis structures for two molecules are shown.Ammonia, NH3, is polar, and borane, BH3, is non-polar. Justify this statement.  |
| **ANSWER** |
| 1. For the first molecule (name) state the **types of bonds** present (name atoms) and state whether they are polar (form a dipole) or non-polar due to electronegativity. |  |
| 2. link **electronegativity** differences to sharing of electrons for your bond |  |
| 3. state the **shape** of your molecule and link to being symmetrical or not and result in dipoles cancelling (or not) |  |
| 4. link to final **polarity** of molecule |  |
| 5. For the second molecule (name) state the **types of bonds** present (name atoms) and state whether they are polar (form a dipole) or non-polar due to electronegativity. |  |
| 6. link **electronegativity** differences to sharing of electrons for your bond |  |
| 7. state the **shape** of your molecule and link to being symmetrical or not and result in dipoles cancelling (or not) |  |
| 8. link to final **polarity** of molecule |  |

NOTE: The white column is how your answer would appear on your test paper so make sure you **write out complete sentences**. The grey area is just to help you structure your answer and would not appear in the question.