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| **VSEPR** | States full term for VSEPR ( ‘valence shell electron pair repulsion’) | 1 |  |
| Uses VSEPR to explain why molecules adopt that particular shape   * Electron pairs surrounding central atom repel each other * Resulting shape has maximum possible distance between groups   *Principle should be used to explain at least two specific example molecules. Only award 2 marks for a ‘general’ description that is not applied to any specific substances.* | 4 |  |
| Example molecules, names and sketches for…   * Linear *(e.g. CO2)* * Bent *(e.g. H2O)* * Pyramidal *(e.g NH3)* * Trigonal planar *(e.g. SO3)* * Tetrahedral *(e.g. CH4)* | 5 |  |
| **Polarity** | Describes polar bond as covalent bond with uneven sharing of electrons.  Relates to difference in electronegativity between two atoms | 2 |  |
| Gives example of non-polar molecule with polar bonds. Explains how the symmetry of the molecule results in no net dipole. Includes sketch. | 3 |  |
| Gives example of polar molecule. Explains how the asymmetry of molecule results in overall dipole. Includes sketch. | 3 |  |
| Provides example of polar molecule which has a symmetrical ‘shape’ (e.g. trigonal planar or linear) but has different atoms attached resulting in asymmetrical dipoles. (e.g. CH2O or HCN)    https://sites.google.com/a/coe.edu/courtney-s-chemistry/_/rsrc/1468750974926/home/polarity/2.PNG | 2 |  |
| **Quality of writing** | Characteristics of excellent answer:  - Well organized ideas that flow easily  - Excellent use of vocabulary, including relevant scientific terms  - Use of subheadings and paragraphs to effectively order ideas  - Concise language – lack of needless repetition  - Use of labelled diagrams and/or tables where appropriate  - Legible writing with minimal spelling errors | 2.5 |  |