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

Writing Excellence answers to **Solids – Melting Point** questions



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| **Solids – Melting Point QUESTION** |
| **Question:**  Explain why chlorine is a gas at room temperature, but copper chloride is a solid at room temperature. In your answer, you should refer to the particles and the forces between the particles in **both** substances. (you will need to fill in the chart below correctly as part of the question and use the terms in your answer)

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| --- | --- | --- | --- |
| Substance | Type of substance | Type of particle | Attractive forces between particles |
| Cl2 (s) chlorine | Molecular | Molecules | Weak intermolecular forces  |
| CuCl2(s) copper chloride | Ionic | Ion | Ionic bonds / electrostatic attraction |

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| **ANSWER** |
| 1. For the first substance (name) state the **type of solid** that it is |  |
| 2. describe the **structure** of this type of substance using the *terms* above in the table |  |
| 3. explain how the **bonding** relates to the energy required to break bonds of your substance |  |
| 4. link to the **observation** (state at room temperature) in your question for the first substance |  |
| 5. For the second substance (name) state the **type of solid** that it is |  |
| 6. describe the **structure** of this type of substance using the *terms* above in the table |  |
| 7. explain how the **bonding** relates to the energy required to break bonds of your substance |  |
| 8. link to the **observation** (state at room temperature) in your question for the first substance |  |

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.