# Chemistry Unit 1

# Extended Response #1

**Bonding in Household Products**

“The properties of many substances make them suitable to use around the home. Discuss the bonding, properties and common household uses of the following four compounds.

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| Compounds |
| Copper  Sodium chloride  Ammonia  Graphite |

For each of the substances listed above describe:

* the type of bonding in each substance, including the arrangement of particles and the nature of the attractive forces that exist between particles
* the properties of the substance and an explanation of how these properties are related to the structure and bonding within the substance
* the uses of the substance in the home, and an explanation of how these uses are dependent on the properties of the substance.

**MARKING KEY**

**RESEARCH NOTES (to be handed in on the day of essay)**

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| **Description** | **Marks** | **Comments** |
| Depth of research (e.g. detail) | 2 marks |  |
| Quality of sources (reliability) | 2 marks |  |
| Formatting of references uses a referencing system e.g. APA | 2 marks |  |

**IN-CLASS ESSAY (no notes permitted during essay)**

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| **Description** | **Marks** | **Comments** |
| Description of the type of bonding, including arrangement of particles and attraction between them | 12 marks |  |
| Description of the properties of substances, and explanation of how those properties relate to the type of bonding | 12 marks |  |
| Description of the uses of substances in the home, and explanation of how these uses is related to the properties of that compound | 12 marks |  |
| Quality of essay (e.g. well organised, uses headings, minimal spelling errors) | 3 marks |  |

**Total mark: / 45**