**Science 1.9 AS 90948** Demonstrate understanding of biological ideas relating to genetic variation



Writing Excellence answers to **Inheritance predictions** questions

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| **Inheritance predictions QUESTION** | |
| **Question:** Huntington’s disease is a genetic disorder in humans. It is caused    by a dominant allele (H). The normal allele is recessive (h).  In the pedigree chart the phenotype ratio of Huntington’s disease  in the children of parents 9 and 10 is not the same as the predicted ratio in the  Punnett square  Give reasons why the predicted ratio in the Punnett square and the observed  ratio in the children may NOT be the same. | |
| **ANSWER** | |
| 1. describe the purpose of **Punnett squares** |  |
| 2. describe the purpose of a **pedigree chart.** |  |
| 3. explain fertilisation as a **random** event |  |
| 4. link **phenotype of offspring to allele they have inherited** (use example from question) |  |
| 5. give phenotypes of offspring in **pedigree chart** and number of each |  |
| 6. compare to phenotypes predicted in **Punnett square** and number of each |  |

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.