

**Year 12 Human Biology**

**Extended Response: Mechanisms of Evolution**

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| Name: |
| Teacher: |

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|  | Marks Received | Marks Available | Percentage |
| Total |  | 35 |  |

Assessment Time: 50 minutes

Weighting: 5%

You must **answer all questions** on the lined paper provided. Please clearly number questions and use the paper at the back of the booklet if you wish to plan your answer. Clearly label your plan.

Human Biological Sciences Unit 4

Extended Response

Write all your answers to the following questions on the paper provided.

Humans all belong to the same species. They have evolved from a single population into different groups that show a wide variation between individuals in their genotypes and phenotypes. Over time the gene frequencies between different groups have changed from the original population. Some groups still share the same alleles, while some groups have completely different alleles.

1. What is meant by the term ‘species’? (1 mark)

2.Explain how differences in gene frequencies arise and produce the variations that we call races. Structure your answer by discussing the five factors below, giving one well explained human example of each

* Mutation
* Gene flow
* Natural Selection
* Founder Effect
* Random Genetic Drift (31 marks)

3. The distinction between different groups of people is becoming blurred in modern humans. In biological terms, explain why this has occurred. (3 marks)

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