Inheritance, variation and evolution

Biology Paper 2 | 30 quick questions

GCSE science knowledge recall

Answer online, marked instantly

Name: _____ **Date:** _____ **Score:** _____ **/ 30**

1 What is the name of the type of cell division that produces gametes?

2 How many chromosomes are there in a human egg or sperm cell?

3 The parasite that causes malaria reproduces sexually in mosquitoes and asexually in humans. What is its name?

Separate science only

4 DNA is made of two strands twisted together. What is this shape called?

5 What is the name for the entire genetic material of an organism?

6 What is the name for a small section of DNA that codes for a particular sequence of amino acids, to make a specific protein?

7 DNA is a polymer. What are its repeating units called?

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8 In DNA, the base A always pairs with which base? Give the name.

Separate science only

9 How many bases in a row code for one amino acid?

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10 What is the name for the different versions of the same gene?

11 An allele that is expressed even if only one copy is present is described as what?

12 What word describes an organism with two identical alleles of a gene, for example BB or bb?

13 What is the name for the characteristics an organism actually shows, such as eye colour?

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14 Two parents are both heterozygous (Aa). What is the probability that a child will be aa? Give a decimal.

Higher

15 Which inherited disorder of cell membranes is caused by a recessive allele and leads to thick mucus in the lungs?

16 Which pair of sex chromosomes does a human male have? Give the letters.

17 What is the probability that a baby will be a boy? Give a decimal.

18 What is the name for a change in the sequence of DNA?

19 Darwin explained evolution by which process? Answer in two words.

20 Give one reason why Darwin's theory of evolution was only slowly accepted.

21 What is the name for humans choosing which plants or animals to breed together to get a useful characteristic?

22 Breeding closely related animals can make them prone to disease. What is this called?

23 In genetic engineering, a gene is often carried into a bacterium inside a small ring of DNA. What is this ring called?

24 Which type of enzyme is used to cut the wanted gene out of a DNA molecule?

Higher

25 Which cloning method grows new plants from small groups of cells taken from a parent plant?

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26 Which monk worked out the basic rules of inheritance by breeding pea plants in the mid-1800s?

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27 Which scientist came up with the idea of natural selection at the same time as Darwin and is known for work on speciation?

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28 What name is given to the remains of organisms from millions of years ago found in rocks?

29 Give the four-letter abbreviation for the strain of bacteria that is resistant to many antibiotics and spreads in hospitals.

30 The three-domain system groups living things into Archaea, Bacteria and which other domain?

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