

COLEGIO BRITÁNICO INTERNACIONAL					
Group	:	8th grade "A"	Academic Year	:	2024 - 2025
Teacher	:	Ing. Diana Vaca	Date	:	17 - 02 - 2025
Student's Name	:		Total	:	____ / 10

- Who is known as the father of genetics?
 - Charles Darwin
 - Gregor Mendel
 - James Watson
 - Francis Crick
- What is a dominant allele?
 - An allele that is always recessive
 - An allele that only appears in homozygous form
 - An allele that masks the effect of a recessive allele
 - An allele that disappears in the next generation
- What is the function of DNA?
 - To store genetic information
 - To provide energy for the cell
 - To break down proteins
 - To transport oxygen
- Which of the following best describes a phenotype?
 - The genetic letter configuration
 - The physical traits that you can see
 - The total number of chromosomes in a cell
 - The number of mutations in a gene
- What are alleles?
 - Different variations of a gene
 - Types of chromosomes
 - Protein molecules
 - Structures inside the nucleus
- What type of cells contain a nucleus?
 - Prokaryotic cells
 - Eukaryotic cells
 - Bacterial cells
 - Viruses
- What is a genotype?
 - The genetic letter configuration
 - The physical traits that you can see
 - The total number of chromosomes in a cell
 - The number of mutations in a gene
- What is the purpose of genetic research?
 - To study the environment
 - To learn about heredity and genetic diseases
 - To identify fossils
 - To improve plant growth
- What does hereditary mean?
 - Passed from parents to offspring
 - A random occurrence
 - A trait that is learned
 - A trait that is caused by the environment
- Which of the following is an ethical concern in genetics?
 - Studying animal behavior
 - Cloning humans
 - Identifying plants
 - Measuring body mass
- What do somatic cells contain?
 - Only sex chromosomes
 - Both autosomes and sex chromosomes
 - Only dominant alleles
 - Only one chromosome from each parent
- What does a Y-linked trait affect?
 - Both males and females
 - Only males
 - Only females
 - Neither males nor females
- What is the shape of DNA?
 - A single strand
 - A double helix
 - A circle
 - A triangle

7. How many chromosomes do humans typically have?
 - a) 23
 - b) 46
 - c) 92
 - d) 12
8. Which of the following represents a homozygous genotype?
 - a) Bb
 - b) Aa
 - c) BB
 - d) Ab
9. What is the purpose of a Punnett square?
 - a) To predict the possible genetic outcomes of offspring
 - b) To measure the size of a chromosome
 - c) To determine the blood type of an individual
 - d) To sequence DNA
10. What are sex chromosomes responsible for?
 - a) Determining an individual's traits
 - b) Determining an individual's sex
 - c) Producing energy for the cell
 - d) Transporting oxygen in the blood
11. Which of the following describes codominance?
 - a) One allele is completely dominant over the other
 - b) Both alleles are expressed equally
 - c) Neither allele is expressed
 - d) The dominant allele completely suppresses the recessive allele
12. What is incomplete dominance?
 - a) A blending of traits
 - b) When one allele is fully expressed
 - c) When neither allele is present
 - d) When a trait disappears completely
13. Which parent determines the sex of a baby?
 - a) Mother
 - b) Father
 - c) Both equally
 - d) It is random
21. What does a carrier of a genetic disorder have?
 - a) Two copies of a dominant allele
 - b) One recessive allele for the disorder
 - c) No copies of the disorder
 - d) A completely different trait
22. What does a mutation do?
 - a) Always cause a disease
 - b) Change the DNA sequence
 - c) Make an organism stronger
 - d) Remove alleles from the gene pool
23. Which blood type is the universal donor?
 - a) A
 - b) B
 - c) AB
 - d) O
24. Which term describes two different alleles for a gene?
 - a) Homozygous
 - b) Heterozygous
 - c) Diploid
 - d) Haploid
25. What is an example of a recessive genetic disorder?
 - a) Hemophilia
 - b) Cystic fibrosis
 - c) Huntington's disease
 - d) Color blindness
26. What is an ethical consideration in genetic research?
 - a) The use of genetic modification in humans
 - b) The classification of animal species
 - c) The study of plant reproduction
 - d) The study of rocks and minerals
27. Why is genetic diversity important?
 - a) It makes all organisms identical
 - b) It increases resistance to diseases
 - c) It prevents evolution
 - d) It limits reproduction