

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

7. How many chromosomes do humans typically have?

- 23
- 46
- 92
- 12

8. Which of the following represents a homozygous genotype?

- Bb
- Aa
- BB
- Ab

9. What is the purpose of a Punnett square?

- To predict the possible genetic outcomes of offspring
- To measure the size of a chromosome
- To determine the blood type of an individual
- To sequence DNA

10. What are sex chromosomes responsible for?

- Determining an individual's traits
- Determining an individual's sex
- Producing energy for the cell
- Transporting oxygen in the blood

11. Which of the following describes codominance?

- One allele is completely dominant over the other
- Both alleles are expressed equally
- Neither allele is expressed
- The dominant allele completely suppresses the recessive allele

12. What is incomplete dominance?

- A blending of traits
- When one allele is fully expressed
- When neither allele is present
- When a trait disappears completely

13. Which parent determines the sex of a baby?

- Mother
- Father
- Both equally
- It is random

21. What does a carrier of a genetic disorder have?

- Two copies of a dominant allele
- One recessive allele for the disorder
- No copies of the disorder
- A completely different trait

22. What does a mutation do?

- Always cause a disease
- Change the DNA sequence
- Make an organism stronger
- Remove alleles from the gene pool

23. Which blood type is the universal donor?

- A
- B
- AB
- O

24. Which term describes two different alleles for a gene?

- Homozygous
- Heterozygous
- Diploid
- Haploid

25. What is an example of a recessive genetic disorder?

- Hemophilia
- Cystic fibrosis
- Huntington's disease
- Color blindness

26. What is an ethical consideration in genetic research?

- The use of genetic modification in humans
- The classification of animal species
- The study of plant reproduction
- The study of rocks and minerals

27. Why is genetic diversity important?

- It makes all organisms identical
- It increases resistance to diseases
- It prevents evolution
- It limits reproduction