

Genetics Explorer Quiz

Genetics · Answer Key · 12 Questions

1. What is the name for a segment of DNA that carries the instructions for a specific trait, like eye colour or hair colour?

- A) Chromosome
- B) Gene**
- C) Cell
- D) Nucleus

2. Humans typically have how many pairs of chromosomes in each of their body cells?

- A) 11 pairs
- B) 23 pairs**
- C) 46 pairs
- D) 12 pairs

3. What molecule carries the genetic instructions for all living organisms?

- A) RNA
- B) Protein
- C) Carbohydrate
- D) DNA**

4. When we inherit traits from our parents, we are receiving them through:

- A) Water and air
- B) Food and vitamins
- C) Genes**
- D) Sunlight

5. A trait that is passed down from parents to their children is called a(n):

- A) Acquired characteristic
- B) Learned behaviour
- C) Inherited trait**
- D) Environmental adaptation

6. What are the thread-like structures found in the nucleus of cells that contain genetic information?

- A) Ribosomes
- B) Mitochondria
- C) Chromosomes**
- D) Vacuoles

7. The specific characteristics an organism has, like whether it has curly or straight hair, are called its:

- A) Genes
- B) Chromosomes
- C) Traits**
- D) Cells

8. Each person gets half of their genes from their mother and half from their father. This combination of genes is called their:

- A) Phenotype
- B) Genotype**
- C) Karyotype
- D) Allele

9. What are the different forms a gene can take, for example, the gene for blue eyes versus the gene for brown eyes?

- A) Chromosomes
- B) Alleles**
- C) Traits
- D) Proteins

10. If a plant has seeds that are either smooth or wrinkled, these are examples of:

- A) Genotypes
- B) Alleles
- C) Traits**
- D) Chromosomes

11. The instructions for building and operating a living thing are found within the:

- A) Skin
- B) Bones
- C) DNA**
- D) Muscles

12. Which of the following is NOT a part of a cell where genetic material is stored?

- A) Nucleus
- B) Mitochondria (in eukaryotes)
- C) Cytoplasm**
- D) Chloroplast (in plant cells)