

QUIZ #1 – Natural Selection & Genetics

Directions: Select terms from below to complete the statements that follow. Each term is used only ONCE, so read through ALL of the statements first, then make your selections.

Populations	Genes	Individuals	Chromosomes	Variation
Selective pressure	Epigenome	Alleles	Nucleus	Gametes

1. Genes are stretches of the DNA molecule carried by the **chromosomes** which are found in the **nucleus** of the cell.
2. The reproductive cells, known as **gametes**, are produced during meiosis and contain only 23 chromosomes which recombine during sexual reproduction to form 46 total chromosomes in the zygote.
3. The **epigenome** influences the expression, behavior & activity of genes without altering the DNA itself as a result of environmental inputs.
4. Natural selection favors **individuals** within a particular environment based on traits that provide an advantage to surviving in that environment.
5. The traits or characteristics that make individual organisms unique in a population are known as **variation**.
6. The source of the differences between individuals is determined by our **genes** which come in different versions known as **alleles**.
7. These genetic variations only make a difference when there is a change in the environment that puts **selective pressure** on the individuals within the population.
8. Through selection, differential reproductive success and continued adaptation through time, **populations** will evolve, or change.