

Theory of Evolution

Answer Key

1. Answer: B.

Explanation: Three main causes of evolutionary change are natural selection, genetic drift, and gene flow. Mutation, on the other hand, is the ultimate source of genetic variation that serves as a raw ingredient for evolution

In studying evolution at the population level, biologists focus on the **gene pool**, which contains all copies of every allele at every locus in all members of the population. It has nothing to do with the evolution.

2. Answer: B.

Explanation: Rudimentary structures, otherwise known as vestigial structures, are remnant structures that have become marginal or perhaps of no importance to the organism. An example in the human body is the appendix. In ancestral species, diet is composed primarily of plant material hence the appendix then functioned as sites where symbiotic microorganisms would help digest cellulose from plant material.

3. Answer: D.

Explanation: Artificial selection is the selective breeding of domesticated plants and animals to get desirable traits in their offspring. Its two essential components are variation and heritability. Variation refers to the differences among individuals in the same group, allowing breeders to select animals or plants with the most desirable combination of characters as breeding stock. Heritability, meanwhile, refers to the transmission of a trait from parent to offspring.

4. Answer: A.

Explanation: Pea plants are more associated with the work done by <u>Gregor Mendel</u>, a <u>monk</u> who started the discipline of genetics by studying garden peas.





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5. Answer: C.

Explanation: A large population's gene pool will not be as strongly affected as smaller groups if they experience the same events and mutations are considered a major contributing force to evolution.

