



Natural Selection

EVO-1.E.1

Natural selection acts on phenotypic variations in populations.

EVO-1.E.2

Environments change and apply selective pressures to populations.

EVO-1.E.3

Some phenotypic variations significantly increase or decrease fitness of the organism in particular environments.



Which level does natural selection act on?

- A. Individual Genotype**
- B. Individual Phenotype**
- C. Population Genotype**
- D. Population Phenotype**

Which level does natural selection act on?

D. Population Phenotype



Natural selection is acting on specific phenotypes in a population. The individuals able to blend into their environments are less likely to be consumed and more likely to survive. The genotype is not involved in the selection of individuals.



What level does natural selection select?

- A. Individual Genotype**
- B. Individual Phenotype**
- C. Population Genotype**
- D. Population Phenotype**

What level does natural selection select?

B. Individual Phenotype



Natural selection is selecting the individuals with the favorable phenotypes. The individuals able to blend into their environments are less likely to be consumed and more likely to survive.



What level does natural selection cause change?

- A. Individual Genotype**
- B. Individual Phenotype**
- C. Population Genotype**
- D. Population Phenotype**

What level does natural selection cause change?

C. Population Genotype



The individuals who are more likely to survive share alleles that led to the favorable phenotype. The allele frequency will increase in the population, thus natural selection causes changes in the population's genotype (allele frequency).

AP BIO INSTA-REVIEW

TOPIC

7.2



An individual evolves to better match its environment.

- A. True**
- B. False**

AP BIO INSTA-REVIEW

TOPIC

7.2

An individual evolves to better match its environment.

B. False



**Individuals DO NOT evolve.
Populations evolve.**

The individuals are selected for or against, but the population will change due to those selections.

AP BIO INSTA-REVIEW

TOPIC

7.2

NOTE:



Be super careful with all the evolution stuff. The population's phenotype is changing. Plus, the population isn't choosing to change. The environment selects certain phenotypes and that will adjust the gene pool.



What is a phenotype?

A. Genes

B. Physical Characteristics

What is a phenotype?



B. Physical Characteristics

Phenotype is the physical (observable) characteristics from the proteins synthesized by the genes (genotype).



**What does natural selection
MODIFY?**

- A. Genotype**
- B. Phenotype**

What does natural selection **MODIFY**?

A. Genotype



Due to specific traits being selected for or against, the alleles for those traits will either increase or decrease in the population. Natural selection modifies the allele frequency which is genotype.

AP BIO INSTA-REVIEW

TOPIC

7.2



What does it mean by fitness?

What does it mean by fitness?



Fitness is the ability for an organism to contribute to the gene pool. It's about being able to survive and reproduce and leave offspring that can survive and reproduce.

AP BIO INSTA-REVIEW

TOPIC

7.2



How do you determine the fitness based on chromosomes



How do you determine the fitness based on chromosomes

The mule is sterile since it has an odd number of chromosomes (the homologous pairs are unable to pair up) so the mule does not contribute to the gene pool.



What does natural selection act on?

Act on means that is selected for or against.

- A. Genotype**
- B. Phenotype**

What does natural selection act on?

Act on means that is selected for or against.

B. Phenotype



Natural selection will determine which individuals will survive. If a phenotype allows for an individual to be more likely to survive, it will be able to leave more offspring. If a phenotype allows for an individual to be less likely to survive, it will leave less offspring.