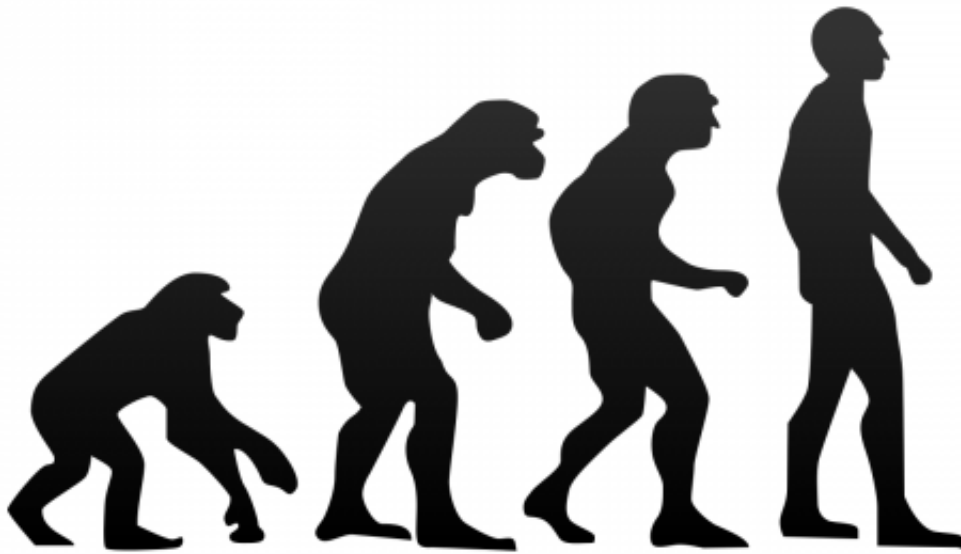


Evolution Quiz: questions and answers



1. What is evolution?

- The permanent alteration of the nucleotide sequence of the genome of an organism, virus, or extrachromosomal DNA or other genetic elements
- The change in the frequency of an existing gene variant (allele) in a population due to random sampling of organisms
- The change in the heritable characteristics of biological populations over successive generations

2. Who were the proponents of the scientific theory of evolution?

- Charles Darwin and Gregor Mendel
- Alfred Russel Wallace and Gregor Mendel
- Charles Darwin and Alfred Russel Wallace

3. When did the last universal common ancestor (LUCA) live?

- 3.5 - 3.8 billion years ago
- 2.7 - 3.1 billion years ago
- 7.2 - 7.8 billion years ago

4. Which Greek philosopher proposed that the first animals lived in water?

- Anaximander
- Empedocles
- Plato

5. What kind of plants did Gregor Mendel use in his experiments?

- Coffee plants

Pea plants

Brown algae

6. What does Mendel's law of segregation state?

Some alleles are dominant while others are recessive; an organism with at least one dominant allele will display the effect of the dominant allele

During gamete formation, the alleles for each gene segregate from each other so that each gamete carries only one allele for each gene

Genes for different traits can segregate independently during the formation of gametes

7. What is the name given to changes in the DNA sequence of a cell's genome?

Pangenesis

Mutations

RNA interference

8. The two-fold cost of sex was first described by:

Brian Goodwin

Stuart Kauffman

John Maynard Smith

9. Who is the author of "On the Origins of Species"?

Carl Correns

Gregor Mendel

Charles Darwin

10. Natural selection is:

The differential survival and reproduction of individuals due to differences in phenotype

An illness that lasts for a long period of time or indefinitely

The transference of genes from one population to another, usually as a result of migration

Evolution Quiz: questions and answers

Right answers

1. What is evolution?

The change in the heritable characteristics of biological populations over successive generations

2. Who were the proponents of the scientific theory of evolution?

Charles Darwin and Alfred Russel Wallace

3. When did the last universal common ancestor (LUCA) live?

3.5 - 3.8 billion years ago

4. Which Greek philosopher proposed that the first animals lived in water?

Anaximander

5. What kind of plants did Gregor Mendel use in his experiments?

Pea plants

6. What does Mendel's law of segregation state?

During gamete formation, the alleles for each gene segregate from each other so that each gamete carries only one allele for each gene

7. What is the name given to changes in the DNA sequence of a cell's genome?

Mutations

8. The two-fold cost of sex was first described by:

John Maynard Smith

9. Who is the author of "On the Origins of Species"?

Charles Darwin

10. Natural selection is:

The differential survival and reproduction of individuals due to differences in phenotype