

1. Which of the following is NOT a mechanism for evolution?

- A. Natural selection
- B. Genetic drift
- C. Gene flow
- D. Mutation

2. Which of the following is an example of a population bottleneck?

- A. A severe drought hits a population of rabbits, and only the rabbits with the gene for long ears survive to reproduce.
- B. A new disease emerges and kills 99% of a population of deer.
- C. A population of lions is introduced to a new area with an abundance of food.

3. Which of the following is an example of genetic drift?

- A. A severe drought hits a population of rabbits, and only the rabbits with the gene for long ears survive to reproduce.
- B. A new disease emerges and kills 99% of a population of deer.
- C. A population of lions is introduced to a new area with an abundance of food.

4. Which of the following is an example of gene flow?

- A. A severe drought hits a population of rabbits, and only the rabbits with the gene for long ears survive to reproduce.
- B. A new disease emerges and kills 99% of a population of deer.
- C. A population of lions is introduced to a new area with an abundance of food.

5. Which of the following is an example of a mutation?

- A. A severe drought hits a population of rabbits, and only the rabbits with the gene for long ears survive to reproduce.
- B. A new disease emerges and kills 99% of a population of deer.
- C. A population of lions is introduced to a new area with an abundance of food.

6. Which of the following is an example of natural selection?

- A. A severe drought hits a population of rabbits, and only the rabbits with the gene for long ears survive to reproduce.
- B. A new disease emerges and kills 99% of a population of deer.
- C. A population of lions is introduced to a new area with an abundance of food.

7. Which of the following is NOT a factor that can lead to evolution?

- A. Natural selection
- B. Genetic drift
- C. Gene flow
- D. Mutation

8. Which of the following is NOT a type of selection?

- A. Directional
- B. Stabilizing
- C. Diversifying
- D. Disruptive

9. What is the difference between microevolution and macroevolution?

- A. Microevolution is the change in allele frequencies within a population over time, while macroevolution is the change in allele frequencies between populations over time.
- B. Microevolution is the change in phenotype frequencies within a population over time, while macroevolution is the change in phenotype frequencies between populations over time.
- C. Microevolution is the change in genotype frequencies within a population over time, while macroevolution is the change in genotype frequencies between populations over time.
- D. There is no difference between microevolution and macroevolution.

10. What is the difference between a species and a population?

- A. A species is a group of organisms that can interbreed and produce fertile offspring, while a population is a group of organisms of the same species that live in the same area.
- B. A species is a group of organisms that can interbreed and produce fertile offspring, while a population is a group of organisms of the same species that live in the same area and interact with each other.
- C. A species is a group of organisms that can interbreed and produce fertile offspring, while a population is a group of organisms of the same species that live in the same area and share a common gene pool.
- D. There is no difference between a species and a population.

11. What is the difference between a gene pool and an allele frequency?

- A. A gene pool is the total number of alleles for a given gene in a population, while an allele frequency is the number of times an allele for a given gene occurs in a population.
- B. A gene pool is the total number of alleles for a given gene in a population, while an allele frequency is the number of times an allele for a given gene occurs in a population divided by the total number of alleles in the population.
- C. A gene pool is the total number of alleles for a given gene in a population divided by the total number of alleles in the population, while an allele frequency is the number of times an allele for a given gene occurs in a population.
- D. There is no difference between a gene pool and an allele frequency.

12. What is the difference between a Hardy-Weinberg equilibrium and an evolutionary equilibrium?

- A. A Hardy-Weinberg equilibrium is when the allele frequencies in a population remain the same from one generation to the next, while an evolutionary equilibrium is when the allele frequencies in a population are in equilibrium with the environment.
- B. A Hardy-Weinberg equilibrium is when the allele frequencies in a population remain the same from one generation to the next, while an evolutionary equilibrium is when the allele frequencies in a population are in equilibrium with the environment and there is no net selection.
- C. A Hardy-Weinberg equilibrium is when the allele frequencies in a population are in equilibrium with the environment, while an evolutionary equilibrium is when the allele frequencies in a population are in equilibrium with the environment and there is no net selection.
- D. There is no difference between a Hardy-Weinberg equilibrium and an evolutionary equilibrium.

13. What is the difference between a founder effect and a bottleneck effect?

- A. A founder effect is when a small number of individuals colonize a new area and establish a new population, while a bottleneck effect is when a population

experiences a severe reduction in size.

B. A founder effect is when a small number of individuals colonize a new area and establish a new population, while a bottleneck effect is when a population experiences a severe reduction in size and there is a loss of genetic diversity.

C. A founder effect is when a small number of individuals colonize a new area and there is a loss of genetic diversity, while a bottleneck effect is when a population experiences a severe reduction in size.

D. There is no difference between a founder effect and a bottleneck effect.

14. What is the difference between genetic drift and natural selection?

A. Genetic drift is a random process that can lead to the loss of alleles from a population, while natural selection is a non-random process that can lead to the loss of alleles from a population.

B. Genetic drift is a random process that can lead to the loss of alleles from a population, while natural selection is a non-random process that can lead to the fixation of alleles in a population.

C. Genetic drift is a non-random process that can lead to the loss of alleles from a population, while natural selection is a random process that can lead to the fixation of alleles in a population.

D. There is no difference between genetic drift and natural selection.

15. What is the difference between an adaptive radiation and convergent evolution?

A. An adaptive radiation is when a new environment is colonized by a small number of individuals from a different environment and they evolve into a variety of new species, while convergent evolution is when two or more unrelated species evolve to become more similar to each other.

B. An adaptive radiation is when a new environment is colonized by a small number of individuals from a different environment and they evolve into a variety of new species, while convergent evolution is when two or more unrelated species evolve to become more similar to each other due to natural selection.

C. An adaptive radiation is when a new environment is colonized by a small number of individuals from a different environment and they evolve into a variety of new species due to natural selection, while convergent evolution is when two or more unrelated species evolve to become more similar to each other.

D. There is no difference between an adaptive radiation and convergent evolution.

16. What is the difference between a species and an ecosystem?

A. A species is a group of organisms that can interbreed and produce fertile offspring, while an ecosystem is a community of different species that interact with each other and their physical environment.

B. A species is a group of organisms that can interbreed and produce fertile offspring, while an ecosystem is a community of different species that interact with each other.

C. A species is a group of organisms that can interbreed and produce fertile offspring, while an ecosystem is the physical environment.

D. There is no difference between a species and an ecosystem.

17. What is the difference between an ecological niche and a habitat?

A. An ecological niche is the role an organism plays in its ecosystem, while a habitat is the place where an organism lives.

B. An ecological niche is the role an organism plays in its ecosystem, while a habitat is the place where an organism lives and its physical environment.

C. An ecological niche is the role an organism plays in its ecosystem, while a habitat is the place where an organism lives and its interactions with other

organisms.

D. There is no difference between an ecological niche and a habitat.

18. What is the difference between a population and a community?

A. A population is a group of organisms of the same species that live in the same area, while a community is a group of different populations that interact with each other.

B. A population is a group of organisms of the same species that live in the same area, while a community is a group of different populations that interact with each other and their physical environment.

C. A population is a group of organisms of the same species that live in the same area and interact with each other, while a community is a group of different populations that interact with each other.

D. There is no difference between a population and a community.

19. What is the difference between an ecosystem and an ecological community?

A. An ecosystem is a community of different species that interact with each other and their physical environment, while an ecological community is a group of different populations that interact with each other.

B. An ecosystem is a community of different species that interact with each other and their physical environment, while an ecological community is a group of different populations that interact with each other and their physical environment.

C. An ecosystem is a community of different species that interact with each other, while an ecological community is a group of different populations that interact with each other.

D. There is no difference between an ecosystem and an ecological community.

20. What is the difference between an ecological niche and an ecological role?

A. An ecological niche is the role an organism plays in its ecosystem, while an ecological role is the place where an organism lives.

B. An ecological niche is the role an organism plays in its ecosystem, while an ecological role is the place where an organism lives and its physical environment.

C. An ecological niche is the role an organism plays in its ecosystem, while an ecological role is the place where an organism lives and its interactions with other organisms.

D. There is no difference between an ecological niche and an ecological role.

21. What is the difference between a food web and a food chain?

A. A food web is a network of interconnected food chains, while a food chain is a linear sequence of organisms that eat each other.

B. A food web is a network of interconnected food chains, while a food chain is a linear sequence of organisms that eat each other and their physical environment.

C. A food web is a network of interconnected food chains, while a food chain is a linear sequence of organisms that eat each other and their interactions with other organisms.

D. There is no difference between a food web and a food chain.

22. What is the difference between a producer and a consumer?

A. A producer is an organism that can make its own food, while a consumer is an organism that cannot make its own food and must eat other organisms.

B. A producer is an organism that can make its own food, while a consumer is an organism that cannot make its own food and must eat other organisms and their physical environment.

- C. A producer is an organism that can make its own food, while a consumer is an organism that cannot make its own food and must eat other organisms and their interactions with other organisms.
- D. There is no difference between a producer and a consumer.

23. What is the difference between a decomposer and a detritivore?

- A. A decomposer is an organism that breaks down dead organisms and their physical environment, while a detritivore is an organism that feeds on dead organisms.
- B. A decomposer is an organism that breaks down dead organisms and their physical environment, while a detritivore is an organism that feeds on dead organisms and their physical environment.
- C. A decomposer is an organism that breaks down dead organisms, while a detritivore is an organism that feeds on dead organisms and their interactions with other organisms.
- D. There is no difference between a decomposer and a detritivore.

24. What is the difference between a predator and a prey?

- A. A predator is an organism that kills and eats other organisms, while a prey is an organism that is killed and eaten by other organisms.
- B. A predator is an organism that kills and eats other organisms, while a prey is an organism that is killed and eaten by other organisms and their physical environment.
- C. A predator is an organism that kills and eats other organisms, while a prey is an organism that is killed and eaten by other organisms and their interactions with other organisms.
- D. There is no difference between a predator and a prey.

25. What is the difference between an ecosystem engineer and a keystone species?

- A. An ecosystem engineer is an organism that alters its physical environment, while a keystone species is an organism that has a large effect on its ecosystem.
- B. An ecosystem engineer is an organism that alters its physical environment, while a keystone species is an organism that has a large effect on its ecosystem and its physical environment.
- C. An ecosystem engineer is an organism that alters its physical environment and its interactions with other organisms, while a keystone species is an organism that has a large effect on its ecosystem.
- D. There is no difference between an ecosystem engineer and a keystone species.

26. What is the difference between a primary succession and a secondary succession?

- A. A primary succession is when a new environment is colonized by a small number of individuals from a different environment, while a secondary succession is when an area is recolonized by a small number of individuals from the same environment.
- B. A primary succession is when a new environment is colonized by a small number of individuals from a different environment, while a secondary succession is when an area is recolonized by a small number of individuals from the same environment and there is a loss of genetic diversity.
- C. A primary succession is when a new environment is colonized by a small number of individuals from a different environment and there is a loss of genetic diversity, while a secondary succession is when an area is recolonized by a small number of individuals from the same environment.
- D. There is no difference between a primary succession and a secondary succession.

27. What is the difference between an ecological niche and a competitive exclusion principle?

- A. An ecological niche is the role an organism plays in its ecosystem, while the competitive exclusion principle is when two species cannot coexist in the same environment because they are competing for the same resources.
- B. An ecological niche is the role an organism plays in its ecosystem, while the competitive exclusion principle is when two species cannot coexist in the same environment because they are competing for the same resources and their physical environment.
- C. An ecological niche is the role an organism plays in its ecosystem, while the competitive exclusion principle is when two species cannot coexist in the same environment because they are competing for the same resources and their interactions with other organisms.
- D. There is no difference between an ecological niche and a competitive exclusion principle.

28. What is the difference between an ecological niche and a resource partitioning?

- A. An ecological niche is the role an organism plays in its ecosystem, while resource partitioning is when two species cannot coexist in the same environment because they are competing for the same resources.
- B. An ecological niche is the role an organism plays in its ecosystem, while resource partitioning is when two species cannot coexist in the same environment because they are competing for the same resources and their physical environment.
- C. An ecological niche is the role an organism plays in its ecosystem, while resource partitioning is when two species cannot coexist in the same environment because they are competing for the same resources and their interactions with other organisms.
- D. There is no difference between an ecological niche and a resource partitioning.

29. What is the difference between an ecological niche and an ecological trap?

- A. An ecological niche is the role an organism plays in its ecosystem, while an ecological trap is when an organism is attracted to an area that is unsuitable for it.
- B. An ecological niche is the role an organism plays in its ecosystem, while an ecological trap is when an organism is attracted to an area that is unsuitable for it and its physical environment.
- C. An ecological niche is the role an organism plays in its ecosystem, while an ecological trap is when an organism is attracted to an area that is unsuitable for it and its interactions with other organisms.
- D. There is no difference between an ecological niche and an ecological trap.

30. What is the difference between an ecological niche and an ecological succession?

- A. An ecological niche is the role an organism plays in its ecosystem, while an ecological succession is the sequence of changes that occur in an ecosystem over time.
- B. An ecological