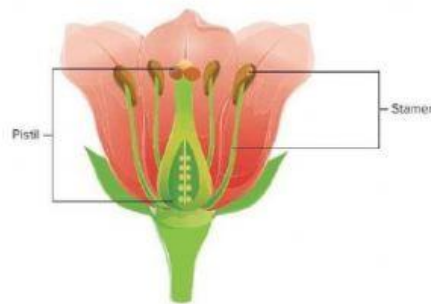


G6- Final revision questions

Which of the following is **Not** true about the following diagram?



- A. It is a flowering plant
- B. it reproduces sexually
- C. the pistil is the male part in the flower
- D. reproduction involves pollination

Which type of reproduction involves the fusion of male and female gametes?

- a) sexual reproduction in flowering plants
- b) Asexual reproduction in flowering plants
- c) Seedless reproduction in plants
- d) None of the above

What is a characteristic of sexual reproduction in flowering plants?

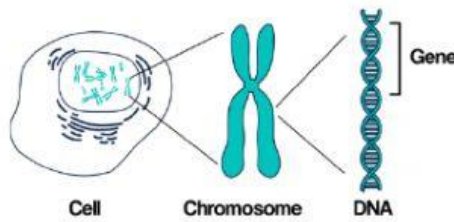
- a) Offspring are genetically identical to the parent plant.
- b) It does not require the involvement of pollinators.
- C) it result in increased genetic diversity.
- d) It only occurs in seed plants.

Which of the following is **NOT** true about plant reproduction?

- A. Mosses and ferns grow from spores
- B. Pollination takes place in seedless plants
- C. Hens and chicks can only reproduce sexually
- D. New "chicks" can grow from the stolons on the main "hen" plant

What is the primary mode of reproduction in seed plants?

- a) Spore dispersal
- b) Vegetative propagation
- c) seed dispersal and germination
- d) Pollination and fertilization



Chromosomes contain genetic material (DNA), sections of DNA are called

- A. Genes
- B. Alleles
- C. Genotypes
- D. Phenotype

Which of the following organisms does **NOT primarily reproduce asexually?**

- A) bacteria
- B) archaea
- C) protists
- D) mammals

What is the main advantage of sexual reproduction in flowering plants?

- a) Rapid reproduction and colonization of new areas
- b) Production of genetically identical offspring
- c) Increased genetic diversity and adaptability
- d) Independence from pollinators

All of the following are advantages of asexual reproduction **EXCEPT**

- A. the population can increase rapidly.
- B. only one parent is needed.
- C. less time and energy as you don't need a mate.
- D. A disease is less likely to affect all the individuals in a population

All of the following are advantages of sexual reproduction **EXCEPT**

- A. Produces variation in the offspring.
- B. A disease is less likely to affect all the individuals in a population.
- C. fertilization cannot take place during pregnancy.
- D. able to survive harsh conditions.

All of the following are disadvantages of asexual reproduction EXCEPT

- A It does not lead to variation in a population.
- B The population can increase rapidly.
- C. The species may only be suited to one habitat.
- D. disease may affect all the individuals in a population.

What reproductive structures are unique to seed plants?

- a) Flowers, fruits, and cones.
- b) Spores and rhizomes
- c) Bulbs, tubers, and runners
- d) Mosses and liverworts

How does a growing population impact land resource?

- a) It leads to the depletion of natural resources.
- B) It increases the availability of land for agriculture.
- c) It has no effect on land resources.
- d) It decreases the demand for land resources.

Which of the following is a consequence of land resource depletion due to population growth?

- a) Increased biodiversity and ecosystem health.
- b) Improved soil fertility and agricultural productivity.
- C) Loss of natural habitats and biodiversity.
- d) Decreased water scarcity and improved water quality

What is the definition of land resources?

- a) The availability of land for construction purposes
- b) The total area of land within a country's borders
- c) Natural resources found within the earth's crust.
- D) The various features and capabilities of land that are valuable to humans.

Which of the following is NOT true about spider finding and courting mate?

- A. male finds a female of the same species by touch or by sensing certain chemicals she releases.
- B. some species court a female with a special dance.
- C. some species, a male might present a female with a gift, such as a fly wrapped in silk
- D. all males are eaten by the females after mating.

Which of the following is **NOT** true about spider reproduction?

- A. Male spiders use their pedipalps to aid in reproduction.
- B. Spiders reproduce asexually.
- C. Male spider places a drop of sperm onto a sheet of silk he constructs.
- D. Male spider dips his pedipalps into the drop to draw up the sperm

Which of the following best defines phenotype?

- a) The genetic factors that determine an organism's traits.
- b) The observable characteristics of an organism influenced solely by environmental factors.
- C) The observable characteristics of an organism influenced by both genetic and environmental factors.
- d) The process by which traits are passed from parents to offspring.

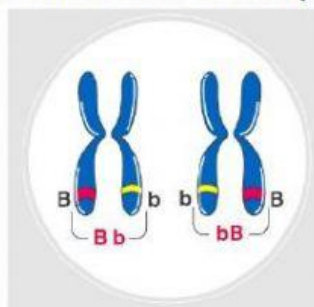
Which of the following is an example of a phenotypic trait?

- a) The presence of a specific gene in an organism.
- B) The inherited eye color of an individual.
- c) The genetic information passed down from parents.
- d) The interaction between an organism and its environment.

What influences an organism's phenotype?

- a) Only genetic factors inherited from parents.
- b) Only environmental factors like nutrition and climate.
- C) Both genetic factors and environmental factors.
- d) Random variations occurring during the organism's development.

An organism that has two different alleles for a trait (hybrid)



- A. dominant trait
- B. genotype
- C. homozygous
- D. heterozygous

What are reappearing traits?

- a) Traits that appear only in certain individuals
- b) Traits that are inherited from both parents
- c) Traits that skip a generation
- d) Traits that manifest in multiple generations

Which of the following is an example of a reappearing trait?

- a) Eye color in humans.
- b) Ability to swim in fish
- c) Feather color in birds
- d) Photosynthesis in plants

What is a genotype?

- a) The physical expression of a trait
- b) The genetic makeup of an organism
- c) The observable characteristics of an organism
- d) The study of inheritance patterns

What is a trait?

- a) The genetic material found in the nucleus of a cell
- b) The combination of alleles that determines a specific characteristic.
- c) The physical features or characteristics of an organism.
- d) The process of passing on genetic information from one generation to the next

What are Mendelian factors?

- a) Genes that are passed on from parents to offspring.
- b) Environmental factors that influence traits
- c) The process of DNA replication
- d) Mutations that occur during genetic recombination

What is an allele?

- a) A specific form of a gene.
- b) The combination of genes in an organism
- c) The physical appearance of a trait
- d) The process of genetic mutation

How many alleles does an organism inherit for each trait?

- a) One allele from one parent.
- b) Two alleles from one parent.
- c) one allele from each parent.
- d) Three alleles from each parent.

What does it mean for an organism to be homozygous?

- a) It has two different alleles for a specific trait.
- b) It has two identical alleles for a specific trait.
- c) It has no alleles for a specific trait.
- d) It has three alleles for a specific trait.

What does it mean for an organism to be heterozygous?

- a) It has two identical alleles for a specific trait.
- b) It has two different alleles for a specific trait.
- c) It has no alleles for a specific trait.
- d) It has three alleles for a specific trait.

Which of the following is an example of a homozygous genotype?

- a) Aa
- b) BB
- c) AB
- d) ABBA

Which of the following is an example of a heterozygous genotype?

- a) AA
- b) CC
- c) TT
- d) Bb

What is the difference between homozygous and heterozygous genotypes?

- a) Homozygous has more alleles than heterozygous.
- b) Homozygous has two different alleles, while heterozygous has two identical alleles.
- c) Homozygous has two identical alleles, while heterozygous has two different alleles.
- d) Homozygous and heterozygous have the same genotype.

What are innate behaviors?

- a) Behaviors that are inherited and present at birth.
- b) Behaviors that are learned through experience
- c) Behaviors that are acquired from other individuals
- d) Behaviors that are influenced by the environment

Which of the following is an example of an innate behavior?

- a) Riding a bicycle
- b) Speaking a language
- c) Flying south for the winter
- d) Solving a math problem

What are learned behaviors?

- a) Behaviors that are inherited from parents
- b) Behaviors that are instinctual and automatic
- c) Behaviors that are acquired through experience and practice.
- d) Behaviors that are genetically determined

What is pollination?

- b) The process of transferring pollen from the stigma to the anther
- b) The process of transferring pollen from the anther to the stigma
- c) The process of transferring seeds from one plant to another
- d) The process of transferring nutrients from the soil to the plant

If a plant produces seed that are sticky or bristles, _____ most likely moves the seed from one place to another.

- A. An animal
- B. the wind
- C. flowers
- D. stay inside

A dandelion produces light, fluffy, seeds that are **carried by** _____.

- A stay inside
- B wind
- C. fruits
- D. water

A plant produces fruit or seeds that float. Which is the most likely way its seeds are moved from one place to another.

- A. wind
- B. water
- C. animals
- D. Human

Which of the following is an example of an environmental factor that can influence phenotype?

- a) The genetic makeup inherited from parents.
- b) The presence of specific genes responsible for a trait.
- C) Exposure to sunlight during the organism's development.
- d) The segregation of alleles during gamete formation.

What is the purpose of the mating dance performed by male spiders?

- a) To find food
- b) To attract prey
- c) To communicate with other spiders
- d) To attract a female mate

How do male spiders typically communicate their interest to female spiders during the mating dance?

- a) By making loud vocal sounds
- b) By releasing a strong scent
- c) By performing a specific pattern of movements
- d) By offering food as a gift

Which of the following statements is true about spider mating dances?

- a) Only female spiders perform the mating dance.
- b) The mating dance is performed by spiders of all species.
- C) The mating dance is primarily performed by male spiders.
- d) The mating dance is a solitary behavior and not influenced by other spiders.

What is the primary purpose of a male spider using its pedipalps and gifting behavior, such as offering a fly wrapped in silk, during courtship?

- a) To protect itself from predators
- b) To build a nest for the female spider
- c) To ensure successful mating and reproductive success
- d) To mark its territory and establish dominance over other males

What does land use refer to?

- a) The total area of land within a country's borders
- b) The process of converting agricultural land into urban areas
- c) The different ways in which land is utilized or managed
- d) The measurement of land productivity and fertility

What is a landfill?

- a) A facility where hazardous waste is safely stored
- b) A designated area where recyclable materials are collected
- c) A site for the disposal of solid waste in a controlled manner
- d) An underground storage facility for radioactive materials



Why is proper management of landfills important?

- a) To prevent the formation of new landfills
- b) To maximize the production of renewable energy
- c) To minimize the release of harmful substances into the environment
- d) To promote the growth of plants and wildlife in landfill areas

Which of the following is an example of the "reduce" principle?

- a) Throwing away plastic bottles after one use
- b) Buying single-use plastic utensils instead of reusable ones
- c) Using a refillable water bottle instead of buying disposable ones
- d) Purchasing new clothes frequently without considering the old ones

What does the "reuse" principle encourage?

- a) Using items for a single purpose and then discarding them
- b) Repurposing or finding new uses for items to extend their lifespan
- c) Recycling materials to create new products
- d) Increasing consumption and buying more items than necessary