

Genetics and Alternation of Generations Quiz

Part 1 – Multiple Choice: Choose the best answer for each question.

1. Genetics is the study of:
 - a. Rocks and minerals
 - b. Heredity and traits
 - c. Weather patterns
 - d. Energy and motion
 2. Traits are:
 - a. Types of plants
 - b. Characteristics passed from parents to offspring
 - c. A kind of habitat
 - d. Animal shelters
 3. Which structure carries genetic information?
 - a. Chloroplast
 - b. DNA
 - c. Roots
 - d. Stem
 4. A gene is:
 - a. A type of animal
 - b. A unit of heredity found on DNA
 - c. A plant organ
 - d. A weather system
 5. In plants, alternation of generations means:
 - a. Plants change colors every season
 - b. Plants alternate between two stages in their life cycle
 - c. Plants only reproduce once
 - d. Plants stop growing during winter
 6. The diploid stage of a plant life cycle is called the:
 - a. Gametophyte
 - b. Sporophyte
 - c. Seed coat
 - d. Pollen grain
 7. The haploid stage of a plant life cycle is called the:
 - a. Sporophyte
 - b. Fruit
 - c. Gametophyte
 - d. Embryo
 8. Which process produces gametes?
 - a. Photosynthesis
 - b. Respiration
 - c. Meiosis
 - d. Digestion
 9. Which of the following is an inherited trait?
 - a. Learning to swim
 - b. Hair color
 - c. Reading ability
 - d. Riding a bike
 10. The main purpose of alternation of generations is:
 - a. To help plants reproduce
 - b. To stop plant growth
 - c. To create weather changes
 - d. To increase sunlight
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Part 2 – Fill in the Blank

Word Bank

Gametophyte

genes

sporophyte

DNA

Meiosis

traits

haploid

inherited

11. _____ carries genetic information in living organisms.
 12. _____ are units of heredity found on chromosomes.
 13. Eye color and freckles are examples of inherited _____.
 14. The _____ stage produces gametes in plants.
 15. The _____ stage produces spores in plants.
 16. _____ is the type of cell division that reduces chromosome number.
 17. Characteristics passed from parents to offspring are called _____ traits.
 18. A cell with one set of chromosomes is called _____.
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Part 3 – True or False: Write T or F for each statement.

19. ____ - Genetics is the study of heredity.
 20. ____ - Learned skills are inherited through DNA.
 21. ____ - The gametophyte stage is haploid.
 22. ____ - Alternation of generations occurs in many plants.
 23. ____ - Meiosis produces cells with fewer chromosomes.
 24. ____ - DNA stands for Deoxyribonucleic Acid.
 25. ____ - The sporophyte stage is diploid.
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