# Mendelian Genetics: Pea Plant Experiments

Biology · Practice Test · 27 Questions

**1. Who is widely considered the father of modern genetics?**

A) Charles Darwin
B) Gregor Mendel
C) James Watson
D) Rosalind Franklin

**2. What type of plant did Gregor Mendel famously use for his experiments?**

A) Rose bushes
B) Sunflower plants
C) Pea plants
D) Oak trees

**3. In Mendel's experiments, what was the observable trait being studied in the 'BOUT HOS WHOTE AND PURPLE FLOWER EXPERIMENT'?**

A) Leaf shape
B) Flower color
C) Stem height
D) Seed texture

**4. What were the two main flower colors observed in Mendel's pea plant experiments?**

A) Red and Yellow
B) Blue and Green
C) White and Purple
D) Pink and Orange

**5. Mendel's experiments helped establish the basic principles of:**

A) Evolution
B) Cellular respiration
C) Heredity
D) Photosynthesis

**6. The 'BOUT HOS WHOTE AND PURPLE FLOWER EXPERIMENT' likely refers to the study of inheritance of which specific trait?**

A) Pea pod shape
B) Pea seed color
C) Flower color
D) Plant size

**7. Mendel's work laid the foundation for understanding how traits are passed from parents to offspring. This process is known as:**

A) Mutation
B) Adaptation
C) Inheritance
D) Selection

**8. The term 'Mendelian genetics' is named after which scientist?**

A) Gregor Mendel
B) Louis Pasteur
C) Marie Curie
D) Albert Einstein

**9. What is a key concept in Mendelian genetics that explains how traits are passed down?**

A) Natural selection
B) Genetic drift
C) Genes and alleles
D) Environmental factors

**10. The experiment involving 'WHOTE AND PURPLE FLOWER' suggests the study of:**

A) Plant diseases
B) Flower pigmentation inheritance
C) Soil composition
D) Water requirements

**11. Mendel's pea plant experiments were crucial for understanding the concept of:**

A) The cell cycle
B) DNA structure
C) Dominant and recessive traits
D) Protein synthesis

**12. The study material mentions 'Mandela peas experiment'. What is the correct spelling of the scientist's last name?**

A) Mandella
B) Mendel
C) Mandela
D) Menthol

**13. The 'BOUT HOS WHOTE AND PURPLE FLOWER EXPERIMENT' is a reference to studies on:**

A) Animal behavior
B) Plant genetics
C) Fungal growth
D) Bacterial reproduction

**14. What did Mendel's experiments with pea plants help to reveal about genetic variation?**

A) It is always detrimental
B) It is essential for adaptation
C) It is limited to a few traits
D) It is only influenced by the environment

**15. The 'WHOTE AND PURPLE FLOWER' experiment directly investigates the inheritance of:**

A) Flower size
B) Flower scent
C) Flower color
D) Leaf arrangement

**16. Gregor Mendel's systematic approach to studying inheritance in pea plants is a cornerstone of:**

A) Quantum physics
B) Organic chemistry
C) Classical genetics
D) Geology

**17. The 'Mandela peas experiment' is a common, though slightly misspelled, reference to the foundational work in genetics by:**

A) Thomas Hunt Morgan
B) Gregor Mendel
C) Alfred Hershey
D) Barbara McClintock

**18. The study material indicates a focus on the inheritance patterns of:**

A) Mammalian traits
B) Insect characteristics
C) Pea plant traits
D) Avian features

**19. The 'BOUT HOS WHOTE AND PURPLE FLOWER EXPERIMENT' is a specific example of studying:**

A) Plant pathology
B) Monohybrid crosses
C) Environmental science
D) Ecology

**20. Which of the following is NOT a trait Mendel studied in pea plants?**

A) Seed shape
B) Pod color
C) Flower color
D) Leaf arrangement

**21. The study of how traits are passed from one generation to the next is called:**

A) Evolution
B) Genetics
C) Physiology
D) Anatomy

**22. The 'WHOTE AND PURPLE FLOWER' experiment would typically involve observing the offspring from crosses between plants with different:**

A) Root systems
B) Flowering times
C) Flower colors
D) Stem lengths

**23. Mendel's experiments provided evidence for the existence of:**

A) Acquired characteristics
B) Units of inheritance
C) Spontaneous generation
D) Environmental determinism

**24. The core of the 'Mandela peas experiment' study material is understanding:**

A) Plant growth hormones
B) Genetic inheritance
C) Soil nutrients
D) Pest control

**25. The 'BOUT HOS WHOTE AND PURPLE FLOWER EXPERIMENT' is a detailed examination of:**

A) Plant reproduction strategies
B) The segregation of alleles
C) The impact of sunlight
D) Water conservation in plants

**26. The concept of dominant and recessive alleles, fundamental to Mendelian genetics, can be inferred from experiments like the one on:**

A) Pea pod texture
B) Flower color inheritance
C) Seed size
D) Plant height

**27. The 'WHOTE AND PURPLE FLOWER' experiment is a classic illustration of Mendel's Law of:**

A) Independent Assortment
B) Segregation
C) Dominance
D) Uniformity