

Historical Milestones in Basic Science

History Of Science · Practice Test · 25 Questions

1. Who is credited with the discovery of the law of universal gravitation in his 1687 publication, 'Philosophiae Naturalis Principia Mathematica'?

- A) Isaac Newton
- B) Johannes Kepler
- C) Galileo Galilei
- D) Albert Einstein

2. Which scientist is famously associated with the discovery of the structure of DNA via X-ray crystallography, known as Photo 51?

- A) Rosalind Franklin
- B) Barbara McClintock
- C) Dorothy Hodgkin
- D) Ada Lovelace

3. In 1911, Ernest Rutherford discovered which part of the atom through his famous gold foil experiment?

- A) The electron
- B) The nucleus
- C) The neutron
- D) The valence shell

4. Which element was the first to be discovered in the Sun via spectroscopy before it was found on Earth?

- A) Helium
- B) Neon
- C) Argon
- D) Krypton

5. Who wrote the seminal 1859 book 'On the Origin of Species', which introduced the scientific theory of evolution by natural selection?

- A) Gregor Mendel
- B) Alfred Russel Wallace
- C) Charles Darwin
- D) Jean-Baptiste Lamarck

6. What medical breakthrough did Edward Jenner achieve in 1796 that laid the foundation for immunology?

- A) Discovery of penicillin
- B) Creation of the smallpox vaccine
- C) Identification of bacteria
- D) Development of anesthesia

7. Marie Curie was the first person to win two Nobel Prizes in two different scientific fields. Which were they?

- A) Physics and Chemistry
- B) Chemistry and Biology
- C) Physics and Medicine
- D) Medicine and Chemistry

8. In 1610, Galileo Galilei used a telescope to discover the four largest moons orbiting which planet?

- A) Mars
- B) Saturn
- C) Jupiter
- D) Venus

9. Which scientist discovered the existence of 'electromagnetic induction' in 1831, leading to the invention of the electric generator?

- A) Nikola Tesla
- B) Michael Faraday
- C) James Clerk Maxwell
- D) Thomas Edison

10. Louis Pasteur is widely recognized for developing the process that kills microorganisms in food products such as milk and wine. What is it called?

- A) Distillation
- B) Fermentation
- C) Pasteurization
- D) Homogenization

11. What did Dmitri Mendeleev create in 1869 that allowed him to predict the existence of undiscovered elements?

- A) The first Periodic Table
- B) The atomic model
- C) Quantum theory
- D) Laws of thermodynamics

12. Who successfully demonstrated the first sustained, controlled nuclear chain reaction at the University of Chicago in 1942?

- A) J. Robert Oppenheimer
- B) Enrico Fermi
- C) Richard Feynman
- D) Leo Szilard

13. In 1928, Alexander Fleming discovered which substance, marking the beginning of the antibiotic era?

- A) Streptomycin
- B) Tetracycline
- C) Penicillin
- D) Sulfonamide

14. What significant astronomical observation did Edwin Hubble announce in 1929 regarding the state of the universe?

- A) The universe is static
- B) The universe is expanding
- C) The universe has a fixed size
- D) The universe is contracting

15. Which ancient Greek scientist is known for formulating the principle of buoyancy, often referred to as his 'Eureka' moment?

- A) Archimedes
- B) Aristotle
- C) Pythagoras
- D) Plato

16. The Cavendish Experiment in 1798 was the first to successfully measure which physical constant?

- A) The speed of light
- B) The universal gravitational constant
- C) The charge of an electron
- D) Planck's constant

17. Which female astronomer discovered 'pulsars' in 1967, a finding for which her advisor received the Nobel Prize?

- A) Cecilia Payne-Gaposchkin
- B) Vera Rubin
- C) Jocelyn Bell Burnell
- D) Henrietta Swan Leavitt

18. Who formulated the laws of planetary motion, describing how planets orbit the Sun in elliptical paths?

- A) Nicolaus Copernicus
- B) Tycho Brahe
- C) Johannes Kepler
- D) Ptolemy

19. What did Robert Hooke name in 1665 after observing cork under a microscope?

- A) Molecules
- B) Atoms
- C) Cells
- D) Organelles

20. Which scientist is credited with the development of the first successful polio vaccine in the early 1950s?

- A) Jonas Salk
- B) Albert Sabin
- C) Louis Pasteur
- D) Robert Koch

21. In 1905, Albert Einstein published his paper on the Photoelectric Effect, which helped prove which aspect of light?

- A) Wave-particle duality
- B) Light as a pure wave
- C) Light as a massless particle
- D) Refraction properties

22. Who identified the three laws of motion that provided the basis for classical mechanics?

- A) Isaac Newton
- B) René Descartes
- C) Johannes Kepler
- D) Christiaan Huygens

23. What substance did William Harvey correctly identify as being circulated throughout the body by the heart in 1628?

- A) Lymph
- B) Blood
- C) Oxygenated air
- D) Nutrient-rich chyle

24. Which early 20th-century scientist developed the theory of continental drift, published in 1915?

- A) Harry Hess
- B) Alfred Wegener
- C) Charles Lyell
- D) James Hutton

25. The 'Double Helix' model of DNA was published in 1953 by which two scientists?

- A) Watson and Crick
- B) Franklin and Wilkins
- C) Hershey and Chase
- D) Meselson and Stahl