

Foundations of Physical Science: Historical Discoveries

Physical Science · Answer Key · 10 Questions

1. Who is famously credited with discovering the law of universal gravitation, a foundational concept in physics?

- A) Galileo Galilei
- B) Isaac Newton**
- C) Albert Einstein
- D) Nicolaus Copernicus

2. Which ancient Greek philosopher is often considered the 'father of western philosophy' and made significant contributions to early ideas about matter?

- A) Aristotle**
- B) Plato
- C) Socrates
- D) Epicurus

3. What element did Marie Curie discover, becoming the first woman to win a Nobel Prize and the only person to win Nobel Prizes in two different scientific fields?

- A) Oxygen
- B) Hydrogen
- C) Radium**
- D) Uranium

4. The discovery of the electron is attributed to which British physicist in 1897?

- A) Ernest Rutherford
- B) Niels Bohr
- C) J.J. Thomson**
- D) Max Planck

5. Which Italian astronomer and physicist is known for his telescopic observations supporting the heliocentric model of the solar system and his experiments with falling objects?

- A) Johannes Kepler
- B) Galileo Galilei**
- C) Tycho Brahe
- D) Copernicus

6. Who developed the theory of relativity, fundamentally changing our understanding of space, time, gravity, and the universe?

- A) Isaac Newton
- B) Max Planck
- C) Albert Einstein**
- D) Werner Heisenberg

7. In what year did the first successful controlled nuclear chain reaction occur, a major event in the development of nuclear physics?

- A) 1939
- B) 1942**
- C) 1945
- D) 1951

8. Which scientist is credited with the discovery of radioactivity in uranium salts in 1896?

- A) Marie Curie
- B) Henri Becquerel**
- C) Pierre Curie
- D) Ernest Rutherford

9. Who proposed the existence of the atom as the smallest indivisible unit of matter in ancient Greece, a concept later refined by modern science?

- A) Aristotle
- B) Democritus**
- C) Plato
- D) Empedocles

10. What fundamental force of nature did Michael Faraday make significant contributions to understanding through his experiments with electromagnetism?

- A) Gravity
- B) Strong Nuclear Force
- C) Electromagnetism**
- D) Weak Nuclear Force