ATOMIC MODEL TIMELINE

VISIT TIMELINE MAKER TEMPLATE

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1803 — John Dalton proposes the "Billiard Ball" model, suggesting that atoms are indivisible and indestructible particles.

1897 — J.J. Thomson proposes the "Plum Pudding" model, which suggests that atoms are a positively charged sphere with negatively charged electrons embedded within, similar to plums in a pudding.

1904 — Hantaro Nagaoka proposes the "Saturnian" model, depicting the atom as a positively charged central nucleus surrounded by rotating rings of electrons, resembling Saturn's rings.

1911 — Ernest Rutherford formulates the "Planetary" model, based on his gold foil experiment, which suggests that atoms have a small, dense, positively charged nucleus at the center, with electrons orbiting around it.

1913 — Niels Bohr presents the "Bohr" model, combining the planetary model with quantum theory, stating that electrons occupy fixed energy levels or shells around the nucleus and can jump between these levels by absorbing or emitting energy.

1926 — Erwin Schrödinger develops the "Quantum Mechanical" model, introducing the concept of electron probability distribution as waves or electron clouds, described by mathematical equations known as wave functions.

1932 — James Chadwick discovers the neutron, a neutral subatomic particle, completing the picture of the atomic nucleus consisting of protons and neutrons.

1961 — Murray Gell-Mann and Yuval Ne'eman independently propose the "Eightfold Way" model, introducing the concept of quarks as the fundamental building blocks of protons, neutrons, and other particles.

1971 — Sheldon Glashow, Abdus Salam, and Steven Weinberg develop the "Electroweak" theory, unifying the electromagnetic and weak nuclear forces and explaining the behavior of elementary particles.

2012 — The discovery of the Higgs boson at the Large Hadron Collider provides experimental evidence supporting the Higgs field and its associated particle, contributing to our understanding of particle masses.