

Celebrating 35 Years of Newbury U3A

35 Scientists Who Changed The World Before They Were 35

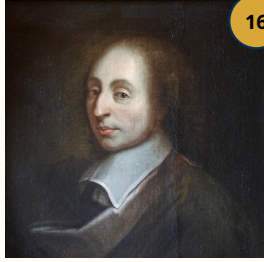
From Aryabhata to modern pioneers, these remarkable scientists made world-changing discoveries before their 35th birthday.



23

Aryabhata
476–550

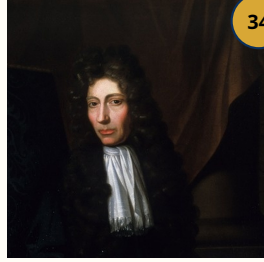
Composed the Aryabhatiya, a compact treatise on mathematics and astronomy.



16

Blaise Pascal
1623–1662

Published work on projective geometry and developed an early mechanical calculator.



34

Robert Boyle
1627–1691

Published The Sceptical Chymist, helping establish modern chemistry.



25

Christiaan Huygens
1629–1695

Discovered Titan and explained the true shape of Saturn's rings.



22

Isaac Newton
1643–1727

Developed foundational ideas in calculus, optics, motion and gravitation during the plague years.



21

Edmond Halley
1656–1742

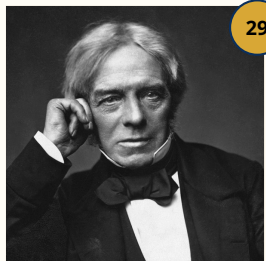
Published a catalogue of southern stars after observations from St Helena.



23

Carl Friedrich Gauss
1777–1855

Published Disquisitiones Arithmeticae, transforming number theory.



29

Michael Faraday
1791–1867

Demonstrated electromagnetic rotation, a key step toward the electric motor.



12

Mary Anning
1799–1847

Helped discover and identify major Jurassic marine fossils, including ichthyosaurs and plesiosaurs.



18

Évariste Galois
1811–1832

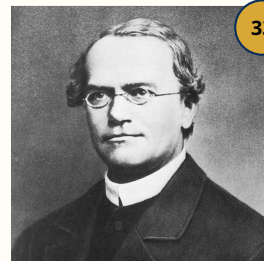
Created foundations of group theory and modern algebra before his death at 20.



27

Ada Lovelace
1815–1852

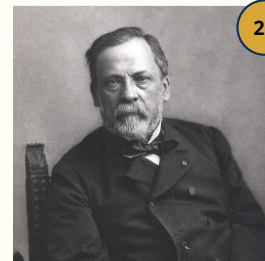
Wrote notes on Babbage's Analytical Engine, including the first published computer algorithm.



33

Gregor Mendel
1822–1884

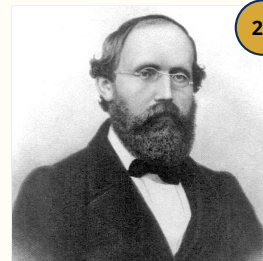
Began pea hybridisation experiments that became the foundation of genetics.



25

Louis Pasteur
1822–1895

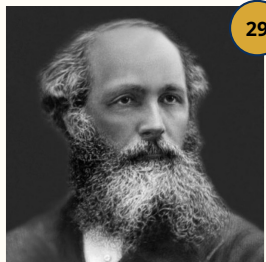
Discovered molecular chirality through work on tartaric acid crystals.



27

Bernhard Riemann
1826–1866

Introduced Riemannian geometry in his habilitation lecture.



29

James Clerk Maxwell
1831–1879

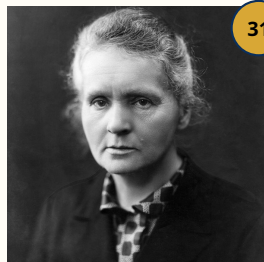
Produced early work on colour photography and electromagnetic theory.



24

Sofia Kovalevskaya
1850–1891

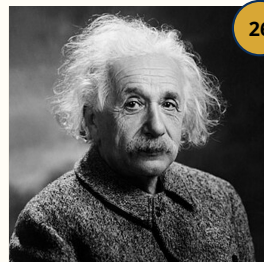
Produced major doctoral work in analysis, including the Cauchy–Kovalevskaya theorem.



31

Marie Curie
1867–1934

Discovered polonium and radium with Pierre Curie and pioneered radioactivity research.



26

Albert Einstein
1879–1955

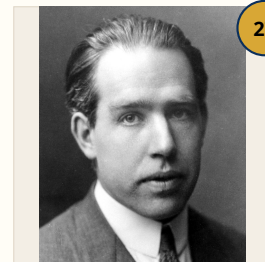
Published four 1905 papers transforming physics.



33

Emmy Noether
1882–1935

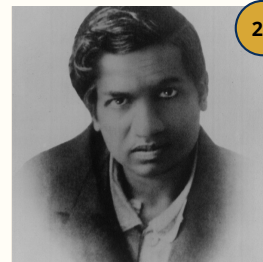
Formulated Noether's theorem connecting symmetries and conservation laws.



27

Niels Bohr
1885–1962

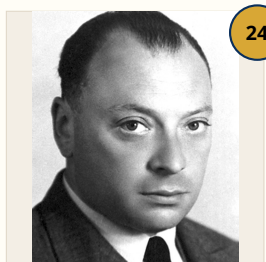
Proposed the Bohr model of the atom.



25

Srinivasa Ramanujan
1887–1920

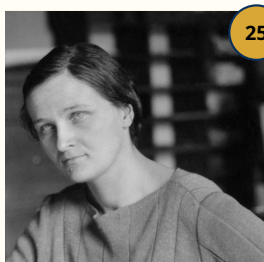
Sent Hardy a letter containing extraordinary mathematical results.



24

Wolfgang Pauli
1900–1958

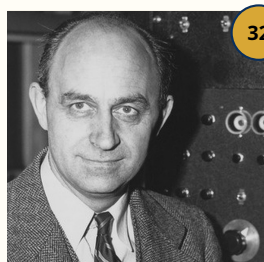
Proposed the exclusion principle.



25

Cecilia Payne-Gaposchkin
1900–1979

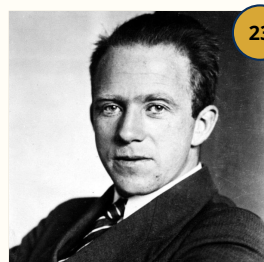
Showed that stars are composed mainly of hydrogen and helium.



32

Enrico Fermi
1901–1954

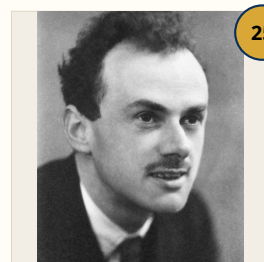
Developed the theory of beta decay.



23

Werner Heisenberg
1901–1976

Created matrix mechanics, one formulation of quantum mechanics.



25

Paul Dirac
1902–1984

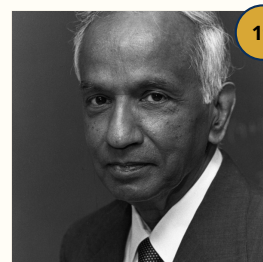
Developed the Dirac equation, predicting antimatter.



28

Barbara McClintock
1902–1992

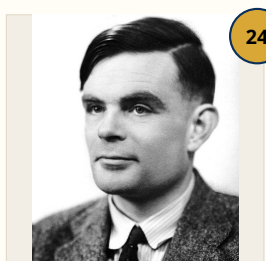
Produced early cytogenetic work linking chromosomes with inherited traits.



19

Subrahmanyan Chandrasekhar
1910–1995

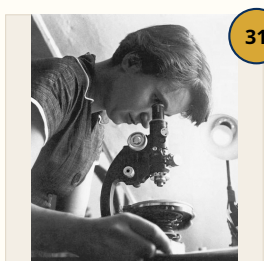
Calculated the white dwarf mass limit now called the Chandrasekhar limit.



24

Alan Turing
1912–1954

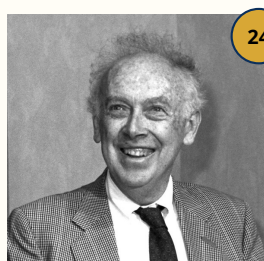
Published On Computable Numbers, introducing the Turing machine.



31

Rosalind Franklin
1920–1958

Produced Photo 51, crucial X-ray evidence for DNA's structure.



24

James Watson
1928–2025

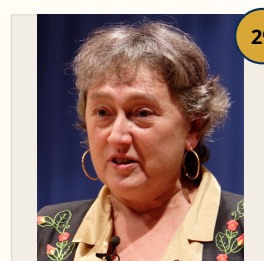
Co-proposed the DNA double helix model.



26

Jane Goodall
1934–2025

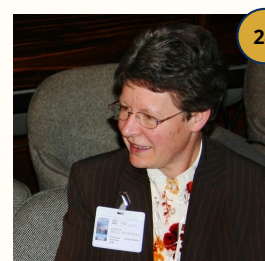
Observed chimpanzees making and using tools.



29

Lynn Margulis
1938–2011

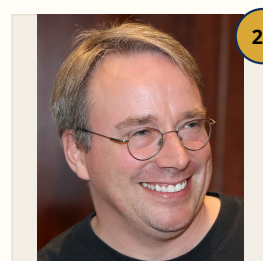
Published the endosymbiotic theory of the origin of eukaryotic cells.



24

Jocelyn Bell Burnell
1943–

Discovered pulsars as a postgraduate student.



21

Linus Torvalds
1969–

Created the Linux kernel.

35

YEARS

NEWBURY U3A

Produced by Newbury U3A Science 2 -
Celebrating Their 10th Birthday

10

YEARS

SCIENCE 2