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1900 Max Planck: Plancks law of black body radiation basis for quantum theory.

1905 Albert Einstein theory of special relativity explanation of Brownian motion and photoelectric effect.

1906 Walther Nernst discovered Third law of thermodynamics.

1907 Alfred Bertheim discovered Arsphenamine the first modern chemotherapeutic agent.

1909 Fritz Haber discovered Haber Process for industrial production of ammonia.

1909 Robert Andrews Millikan discovered conducts the Oil drop experiment and determines the charge on an electron.

1911 Ernest Rutherford discovered Atomic nucleus.

1911 Heike Kamerlingh Onnes discovered Superconductivity.

1912 Alfred Wegener discovered Continental drift.

1912 Max von Laue discovered x ray diffraction.

1913 Henry Moseley discovered defined atomic number.

1913 Niels Bohr discovered Model of the atom.

1915 Albert Einstein discovered theory of general relativity also David Hilbert.

1915 Karl Schwarzschild discovered discovery of the Schwarzschild radius leading to the identification of black holes.

1918 Emmy Noether discovered Noether's theorem conditions under which the conservation laws are valid.

1920 Arthur Eddington discovered Stellar nucleosynthesis.

1922 Frederick Banting Charles Best Bertram Collip John Macleod discovered isolation and production of insulin to control diabetes.

1924 Wolfgang Pauli discovered quantum Pauli exclusion principle.

1924 Edwin Hubble discovered the discovery that the Milky Way is just one of many galaxies.

1925 Erwin Schrödinger discovered Schrödinger equation .

1925 Cecilia Payne Gaposchkindiscovered Discovery of the composition of the Sun and that Hydrogen is the most abundant element in the Universe.

1927 Werner Heisenberg Uncertainty principle.

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- 1927 Georges Lemaître Theory of the Big Bang.
- 1928 Paul Dirac Dirac equation .
- 1929 Edwin Hubble Hubble's law of the expanding universe.
- 1928 Alexander Fleming Penicillin the first beta lactam antibiotic.
- 1929 Lars Onsager's reciprocal relations a potential fourth law of thermodynamics.
- 1932 James Chadwick Discovery of the neutron.
- 1934 Clive McCay Calorie restriction extends the maximum lifespan of another species.
- 1938 Otto Hahn Lise Meitner and Fritz Strassmann discovered Nuclear fission.
- 1943 Oswald Avery proves that DNA is the genetic material of the chromosome.
- 1947 William Shockley John Bardeen and Walter Brattain invent the first transistor.
- 1948 Claude Elwood Shannon A mathematical theory of communication a seminal paper in Information theory.
- 1948 Richard Feynman Julian Schwinger Sin Itiro Tomonaga and Freeman Dyson Quantum electrodynamics.
- 1951 George Otto Gey propagates first cancer cell line HeLa.
- 1952 Jonas Salk developed and tested first polio vaccine.
- 1953 Crick and Watson helical structure of DNA basis for molecular biology.
- 1963 Lawrence Morley Fred Vine and Drummond Matthews discovered Paleomagnetic stripes in ocean crust as evidence of plate tectonics .
- 1964 Murray Gell Mann and George Zweig discovered postulates quarks leading to the standard model.
- 1964 Arno Penzias and Robert Woodrow Wilson detection of CMBR providing experimental evidence for the Big Bang.
- 1965 Leonard Hayflick normal cells divide only a certain number of times the Hayflick limit.
- 1967 Jocelyn Bell Burnell and Antony Hewish discover first pulsar.
- 1983 Kary Mullis invents the polymerase chain reaction a key discovery in molecular biology.

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1986 Karl Muller and Johannes Bednorz Discovery of High temperature superconductivity.

1994 Andrew Wiles proves Fermat's Last Theorem.

1995 Michel Mayor and Didier Queloz definitively observe the first extrasolar planet around a main sequence star.

1995 Eric Cornell Carl Wieman and Wolfgang Ketterle attained the first Bose Einstein Condensate with atomic gases and so called fifth state of matter at an extremely low temperature.

1997 Roslin Institute Dolly the sheep was cloned.

1997 CDF experiments at Fermilab Top quark.

1998 Supernova Cosmology Project and the High Supernova Search Team made the discovery of the accelerated expansion of the Universe or Dark Energy.

2001 The first draft of the human genome is completed.

2003 Grigori Perelman presents proof of the Poincaré Conjecture.

2006 Shinya Yamanaka generates first induced pluripotent stem cells.

2010 J Craig Venter Institute creates the first synthetic genome for a bacterial cell.

2010 The Neanderthal Genome Project presented preliminary genetic evidence that interbreeding did likely take place and that a small but significant portion of Neanderthal admixture is present in modern non African populations.

2012 Higgs boson is discovered at CERN .

2012 Photonic molecules are discovered at MIT.

2014 Exotic hadrons are discovered at the LHCb.

2015 Kepler 438b discovered to have similar Earth like properties.

2015 Traces of liquid water discovered on Mars.