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DR. AMBEDKAR GHSS KODOTH

2018-19

INSPIRE-2019

inspire

DIGITAL MAGAZINE

PREPARED BY ---

LITTLE KITES

Index

ആമുഖം

വിദ്യാഭ്യാസരംഗത്ത് മലയോര മേഖലയിൽ മുന്നിട്ടു നിൽക്കുന്ന വിദ്യാലയങ്ങളിൽ ഒന്നാണ് ഇത്. 1954 സെപ്റ്റംബർ 30 മുതൽ ഈ വിദ്യാലത്തിന്റെ എഴുതപ്പെട്ട ചരിത്രം ആരംഭിക്കുന്നു. ഇതിനും മുമ്പ് തന്നെ "എഴുത്തുടായ്" ഇതിന്റെ പ്രവർത്തനം ആരംഭിച്ചിരുന്നു. കുഞ്ഞിപ്പുതിയവീട്ടിൽ കുഞ്ഞിക്രുഷ്ണൻ നായരുടെ ഒഴിഞ്ഞ വീട്ടിൽ പ്രവർത്തനം ആരംഭിച്ച വിദ്യാലയം ഒരു വർഷത്തിനു ശേഷം പുളിക്കാൽ ദേവസ്വം സ്ഥലത്തേക്കു മാറി. സുമനസ്ക്കരായ ശ്രീ. കെ. പി. കുഞ്ഞമ്പുനായർ, ശ്രീ. കെ.പി. രാധാകൃഷ്ണൻ എന്നിവർ സൗജന്യമായി നൽകിയ സ്ഥലത്ത് 1968 മുതൽ ഈ വിദ്യാലയം പ്രവർത്തിച്ചു വരുന്നു. 1980, 1990,2000 എന്നീ വർഷങ്ങളിൽ യഥാക്രമം യു.പി, ഹൈസ്ക്രൂൾ, ഹയർസെക്കന്ററി സ്ക്രൂളായി ഉയർത്തപ്പെട്ടു. 54 വിദ്യാലയങ്ങളുമായി പ്രവർത്തനം ആരംഭിച്ച ഈ സ്ക്രൂളിൽ ഇന്ന് ആയിരത്തി അഞ്ഞൂറിലധികം വിദ്യാർത്ഥികളും 60

ൽ അധികം ജീവനക്കാരുമുണ്ട്.മെച്ചപ്പെട്ട ദൗതികസാഹചര്യം,ഗതാഗതസൗകര്യത്തിനായി 4 സ്ക്രൾ ബസ്സുകൾ എന്നിവ മികച്ച പി.ടി.എ.യുടെ അടയാളമാണ്. ജില്ലയിലെ മികച്ചവിദ്യാലയങ്ങളിൽ ഒന്നാകാൻ ആസൂത്രിത പ്രവർത്തനങ്ങളിലൂടെ നമ്മുടെ വിദ്യാലയത്തിന് കഴിഞ്ഞിട്ടുണ്ട്.പൊതു പരീക്ഷകളിൽ 100% വിജയം കൈവരിക്കുന്നതിന് വിദ്യാലയത്തിന്റെ കൂട്ടായ്മയ്ക്ക് കഴിഞ്ഞിട്ടുണ്ട്. പാഠ്യ പാഠ്യേതര പ്രവർത്തനങ്ങളിൽ മികവ് തെളിയിച്ച ഈ വിദ്യാലയം ഇന്ന് മുന്നേറ്റത്തിന്റെ പാതയിലാണ്.

ആശംസ

കുട്ടികളിലെ സർഗവാസനകൾ വികസിപ്പിച്ചുകൊണ്ട് സാമൂഹിക പുരോഗതിക്ക് ഊർജസ്വലരായ പ്രതിഭകളെ വളർത്തിക്കൊണ്ടുവരാൻ നമ്മുടെ ലിറ്റിൽ കൈറ്റ് യൂണിറ്റിന് സാധിക്കട്ടെ എന്ന് ആശംസിക്കുന്നു.

ഗണേശൻ.എം

PTA PRESIDENT

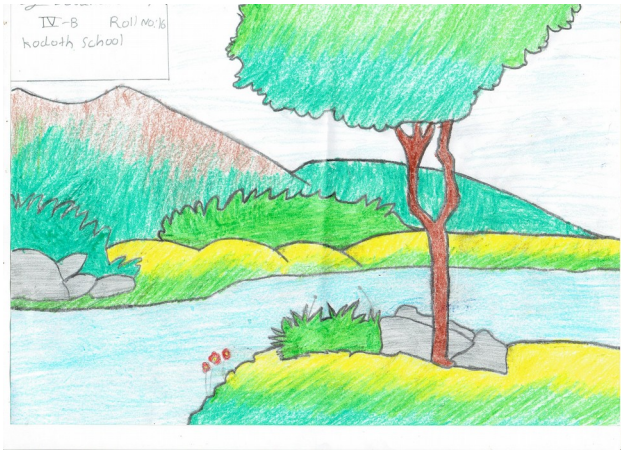
ആശംസ

കോടോത്ത് ഡോ.അംബേദ്കർ ഗവ: ഹയർ സെക്കണ്ടറി സ്കൂളിലെ ലിറ്റിൽ കൈറ്റ് യൂണിറ്റിലെ കുരുന്നു മനസ്സുകളിലെ കലാപരമായ കഴിവും ആശകളും കൂമ്പടഞ്ഞു പോവാതെ വർണ്ണശബളമായ പുതുമയുള്ള വിഭവങ്ങളായി പുറത്തു വന്നിരിക്കുന്നു. ഈ ഡിജിറ്റൽ മാസികയുടെ അണിയറയിൽ പ്രവർത്തിച്ച എല്ലാ ലിറ്റിൽ കൈറ്റ്അംഗങ്ങളേയും അതിന് പ്രചോദനം നൽകിയവരേയും അഭിനന്ദിച്ചുകൊണ്ട് എല്ലാ ആശംസകളും നേരുന്നു.

HEADMISTRESS

നിർമ്മല.എൻ.കെ.

എന്റെ കേരളം



പൂക്കളും പുഴകളും മലകളും
ചേർന്നൊരു നാടാണെൻ
കേരളം
കുഞ്ഞനും തുഞ്ചനും പിറന്ന നാട്
പൂർണ്ണ സാക്ഷരത നേടിയതിൽ
ഒന്നാം സ്ഥാനം കേരളമാണേ സഖേ
മകഹാവികൾ പിറന്ന നാട് കേരളം
കലകളാൽ സമ്പന്നമായ കേരളം
ദരണഘടനാ ശില്പിതൻ നാടാണ് കേരളം
ഗ്രാമങ്ങളും പട്ടണങ്ങളും നിറഞ്ഞ
നാടാണ് കേരളം
ദൈവത്തിന്റെ സ്വന്തം നാടായ കേരളം
എത്ര മനോഹരമാണെന്റെ കേരളം
ഓണം വിഷു ദീപാവലി
പല പല ആഘോഷങ്ങളാൽ നിറഞ്ഞതാണേ കേരളം
സ്നേഹിക്കുന്നു ഞാനെന്റെ നാടിനെ
അഭിമാനിക്കുന്നു ഒരു കേരളീയനായതിൽ
എന്റെ സ്വന്തം കേരളം

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ആൻമരിയ സന്തോഷ്
4.ബി.

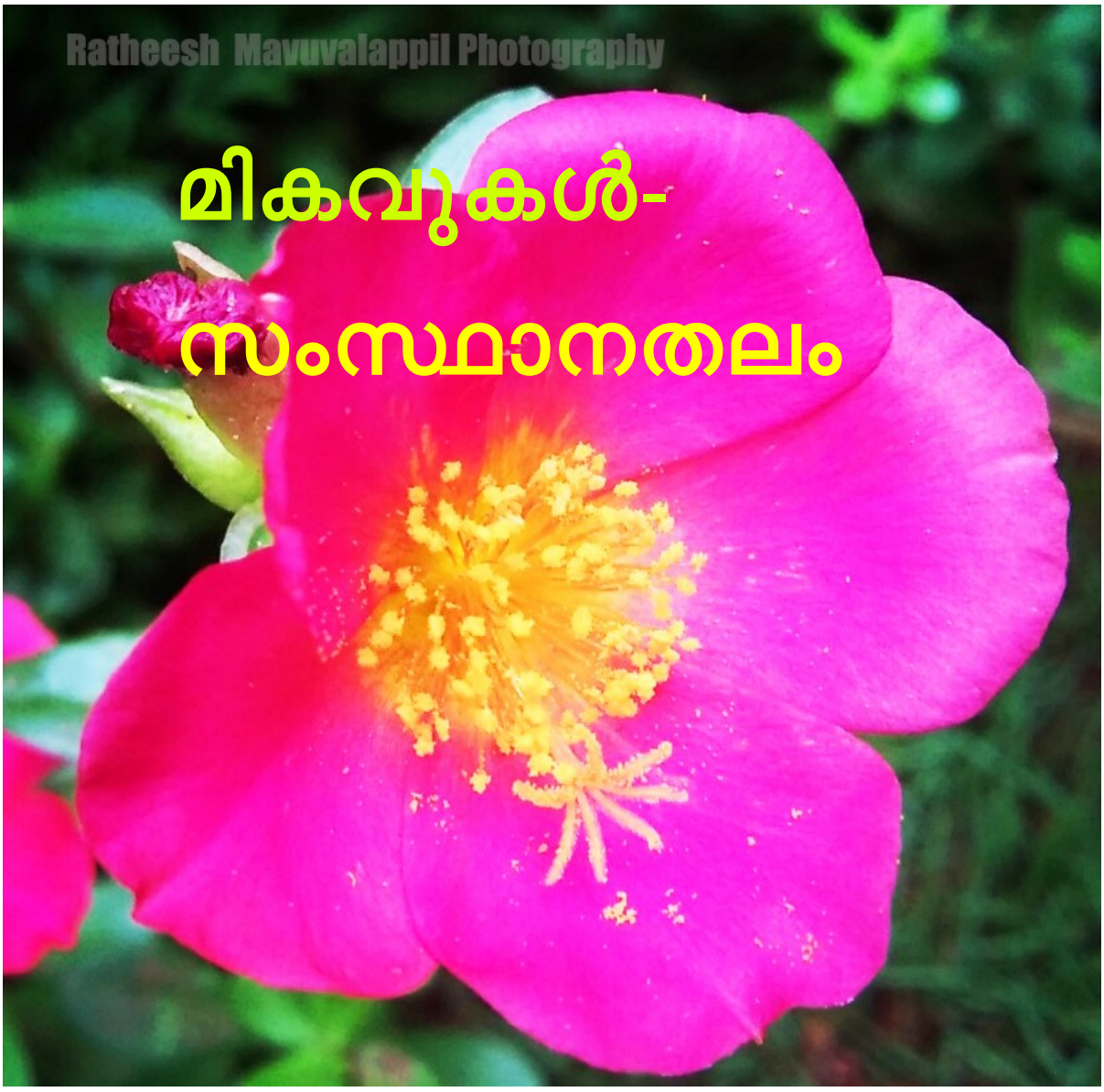
മഞ്ഞക്കിളി

മഞ്ഞക്കിളിയെ
മഞ്ഞക്കിളിയെ
നിന്നെ കാണാൻ
എന്തുരസം
നിൻസ്വരം കേൾക്കാൻ
എന്തുരസം
നിന്നെ തഴുകാൻ
കൊതിയുണ്ട്
പാറിനടക്കാൻ രസമുണ്ടോ?
മഞ്ഞപുതപ്പ് പുതയ്ക്കിട്ട്
മാനത്തങ്ങനെ നടന്നിട്ട്
വല്യമനസ്സിൻ സ്നേഹങ്ങൾ
പെരുമഴ പെയ്യും നേരത്ത്
പയ്യില മൂടി ഉറങ്ങീടും.

അശ്വതി .ടി
4.A

വൈശാഖ് തമ്പാൻ കെ 9B


Vaishakh Thamban. K


Ratheesh Mavuvalappil Photography
മികവുകൾ-
സംസ്ഥാനതലം

നാടൻ പാട്ട് 2nd A Grade

Vaishnav K B
Nayana O
Sanjana B
Ashwathi P
Sreenidhi Bhat
Abhirami P
Abhinav P

Work Experience-Garments making

A Grade Anagha K N -9B

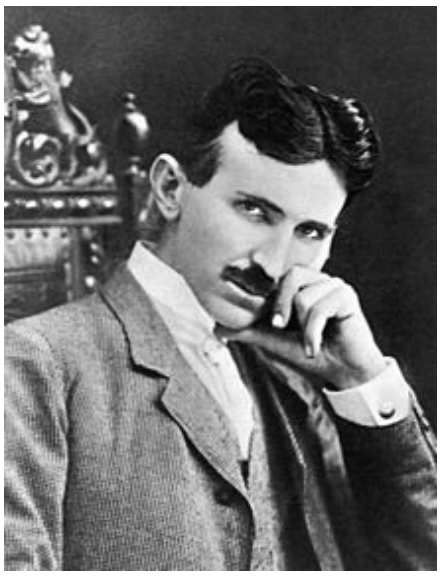
സംസ്ഥാന തലം-

വോളിബോൾ,ഡിസ്ക്കസ് ത്രോ

മിഥുൻ കൃഷ്ണൻ 7 B

ശാസ്ത്രജ്ഞന്മാർ(SCIENCE)

NICOLA TESLA



Born :10 July 1853

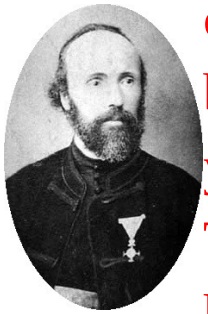
Died :7 January 1943

Signature : Nikola Tesla

Nikola Tesla was born an ethnic Serb in the village Smiljan Lika county, in the Austrian Empire (present day Croatia), on 10 July 28 June] 1856.His father, Milutin Tesla (1819–1879), was an Eastern Orthodox priest.Tesla's mother, Duka Tesla whose father was also an Orthodox priest,had a talent for making home craft tools and mechanical appliances and the ability to memorize Seribian Epic Poem. Duka had never received a formal education. Tesla credited his eidetic

memory and creative abilities to his mother's genetics and influence.Tesla's progenitors were from western Serbia, near Montenegro Tesla was the fourth of five children. He had three sisters, Milka, Angelina and Marica, and an older brother named Dane, who was killed in a horse riding accident when Tesla was aged five. In 1861, Tesla attended primary school in Smiljan where he studied German, arithmetic, and religion.In 1862, the Tesla family moved to the nearby Gospic, Lika where Tesla's father worked as parish priest. Nikola completed primary school, followed by middle school.In 1870, Tesla moved far north to Karlovac to attend high school at the Higher Real Gymnasium. The classes were held in German, as it was a school within the Austro-Hungarian Militery Fontier.

Tesla would later write that he became interested in demostrations of electricity by his physiques profosser.Tesla noted that these demostrations of this "mysterious pheonomena" made him want " to know more of this wonderful force. Tesla was able to perform integral



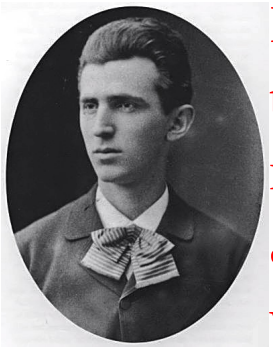
calculas in his head,which promote his teachers to believe that he was cheating.He finished a four-year in three year,graduating in 1873.In 1873, Tesla returned to Smiljan. Shortly after he arrived, he contracted cholera, was bedridden for nine months and was near death multiple times. Tesla's father, in a moment of despair, (who had originally wanted him to

enter the priesthood)promised to send him to the best engineering school if he recovered from the illness.In 1874, Tesla evaded conscription into the Austro-Hungarian Army in Smiljan by running away southeast of Lika to Tomingaj, near Gracac. There he explored the mountains wearing hunter's garb. Tesla said that this contact with nature made him stronger, both physically and mentally.He read many books while in Tomingaj and later said that Mark Twain's works had helped him to miraculously recover from his earlier illness.

In 1875, Tesla enrolled at Austrian Polytechnic in Graz, Austria, on a Military Frontier scholarship. During his first year, Tesla never missed a lecture, earned the highest grades possible, passed nine exams (nearly twice as many as required), started a Serb cultural club, and even received a letter of commendation from the dean of the technical faculty to his father, which stated, "Your son is a star of first rank."During his second year, Tesla came into conflict with Professor Poeschl over the Gramme dynamo, when Tesla suggested that commutators were not necessary. Tesla claimed that he worked from 3a.m. to 11p.m., no Sundays or holidays excepted. He was "mortified when [his] father made light of [those] hard won honors." After his father's death in 1879, Tesla found a package of letters from his professors to his father, warning that unless he were removed from the school, Tesla would die through

overwork. At the end of his second year, Tesla lost his scholarship and became addicted to gambling.During his third year, Tesla gambled away his allowance and his tuition money, later gambling back his initial losses and returning the balance to his family. Tesla said that he "conquered [his] passion then and there," but later in the U.S. he was again known to play billiards. When examination time came, Tesla was unprepared and asked for an extension to study, but was denied. He did not receive grades for the last semester of the third year and he never graduated from the university.

In December 1878, Tesla left Graz and severed all relations with his family to hide the fact that he dropped out of school.His friends thought that he had drowned in the nearby Mur River.Tesla moved to Maribor, where he worked as a draftsman for 60 florins per month. He spent his spare time playing cards with local men on the streets.



In March 1879, Tesla's father went to Maribor to beg his son to return home, but he refused.Nikola suffered a nervous breakdown around the same time.On 24 March 1879, Tesla was returned to Gospic under police guard for not having a residence permit.

On 17 April 1879, Milutin Tesla died at the age of 60 after contracting an unspecified illness.Some sources say that he

died of a stroke.During that year, Tesla taught a large class of students in his old school in Gospic.

In January 1880, two of Tesla's uncles put together enough money to help him leave Gospić for Prague, where he was to study. He arrived too late to enroll at Charles-Ferdinand University; he had never studied Greek, a required subject; and he was illiterate in Czech, another required subject. Tesla did, however, attend lectures in philosophy at the university as an auditor but he did not receive grades for the courses.

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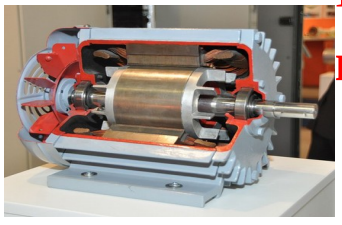
university as an auditor but he did not receive grades for the courses.

His Main Scientificant Designs

AC MOTOR-An **AC motor** is an electric motor driven by an alternating current (AC). The AC motor commonly consists of two basic parts, an outside stator having coils supplied with alternating current to produce a rotating magnetic field, and an inside rotor attached to the output shaft producing a second rotating magnetic field. The rotor magnetic field may be produced by permanent magnets, reluctance saliency, or DC or AC electrical windings.

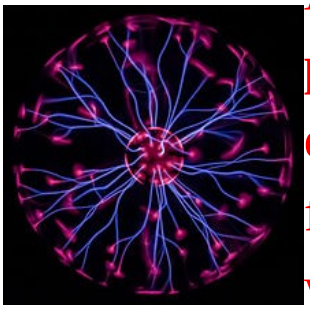
Less common, AC linear motors operate on similar principles as rotating motors but have their stationary and moving parts arranged in a straight line configuration, producing linear motion instead of rotation.



INDUCTION MOTOR-An **induction motor** or **asynchronous motor** is an AC

electric motor in which the electric current in the rotor needed to produce torque is obtained by electromagnetic induction from the magnetic field of the stator winding.An induction motor can therefore be made without electrical connections to the rotor. An induction motor's rotor can be either wound type or squirrel-cage type.

Three-phase squirrel-cage induction motors are widely used as industrial drives because they are self-starting, reliable and economical. Single-phase induction motors are used extensively for smaller loads, such as household appliances like fans. Although traditionally used in fixed-speed service, induction motors are increasingly being used with variable-frequency drives (VFDs) in variable-speed service. VFDs offer especially important energy savings opportunities for existing and prospective induction motors in variable-torque centrifugal fan, pump and compressor load applications. Squirrel cage induction motors are very widely used in both fixed-speed and variable-frequency drive (VFD) applications.



A **plasma globe** or **plasma lamp** (also called **plasma ball**, **dome**, **sphere**, **tube** or **orb**, depending on shape) is a clear glass container filled with a mixture of various noble gases with a high-voltage electrode in the center of

the container.

When voltage is applied, a plasma is formed within the container. Plasma filaments extend from the inner electrode to the outer glass insulator, giving the appearance of multiple constant beams of colored light (see corona discharge and electric glow discharge). Plasma globes were most popular as novelty items in the 1980s.

The plasma lamp was invented by Nikola Tesla, during his experimentation with high-frequency currents in an evacuated glass tube for the purpose of studying high voltage phenomena.Tesla called his invention an "inert gas discharge tube". The modern plasma lamp design was subsequently developed by Bill Parker, a student at MIT

The **World Wireless System** was a turn of the 20th century proposed telecommunications and electrical power delivery system designed by inventor Nikola Tesla based on his theories of using Earth and its atmosphere as electrical conductors. He claimed this system would allow for "the transmission of electric energy without wires" on a global scale as well as point-to-point wireless telecommunications and broadcasting. He made public

statements citing two related methods to accomplish this from the mid-1890s on. By the end of 1900 he had convinced banker J. P. Morgan to finance construction of a wireless station (eventually sited at Wardenclyffe) based on his ideas intended to transmit messages across the Atlantic to England and to ships at sea. His decision to change the design to include wireless power transmission to better compete with Guglielmo Marconi's new radio based telegraph system was met with Morgan's refusal to fund the changes. The project was abandoned in 1906, never to become operational.

During this period Tesla filed numerous patents associated with the basic functions of his system, including transformer design, transmission methods, tuning circuits, and methods of signaling. He also described a plan to have some thirty Wardenclyffe-style telecommunications stations positioned around the world to be tied into existing telephone and telegraph systems. He would continue to elaborate to the press and in his writings for the next few decades on the system's capabilities and how it was superior to radio-based systems.

Despite claims of having "carried on practical experiments in wireless transmission", there is no documentation he ever transmitted power beyond relatively short distances and modern scientific opinion is generally that his wireless power scheme would not have worked.

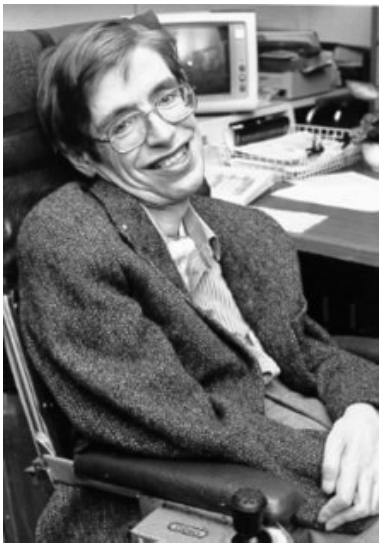
Literary works

Tesla wrote a number of books and articles for magazines and journals. Among his books are *My Inventions: The Autobiography of Nikola Tesla*, compiled and edited by Ben Johnston; *The Fantastic Inventions of Nikola Tesla*, compiled and edited by David Hatcher Childress; and *The Tesla Papers*.

Many of Tesla's writings are freely available online,including the article "The Problem of Increasing Human Energy," published in *The Century Magazine* in 1900, and the article "Experiments With Alternate Currents Of High Potential And High Frequency," published in his book *Inventions, Researches and Writings of Nikola Tesla*.

STEPHEN WILLIAM HAWKING

Born :January 8 1942 Oxford , England
Death:March 14 2018,Cambridge

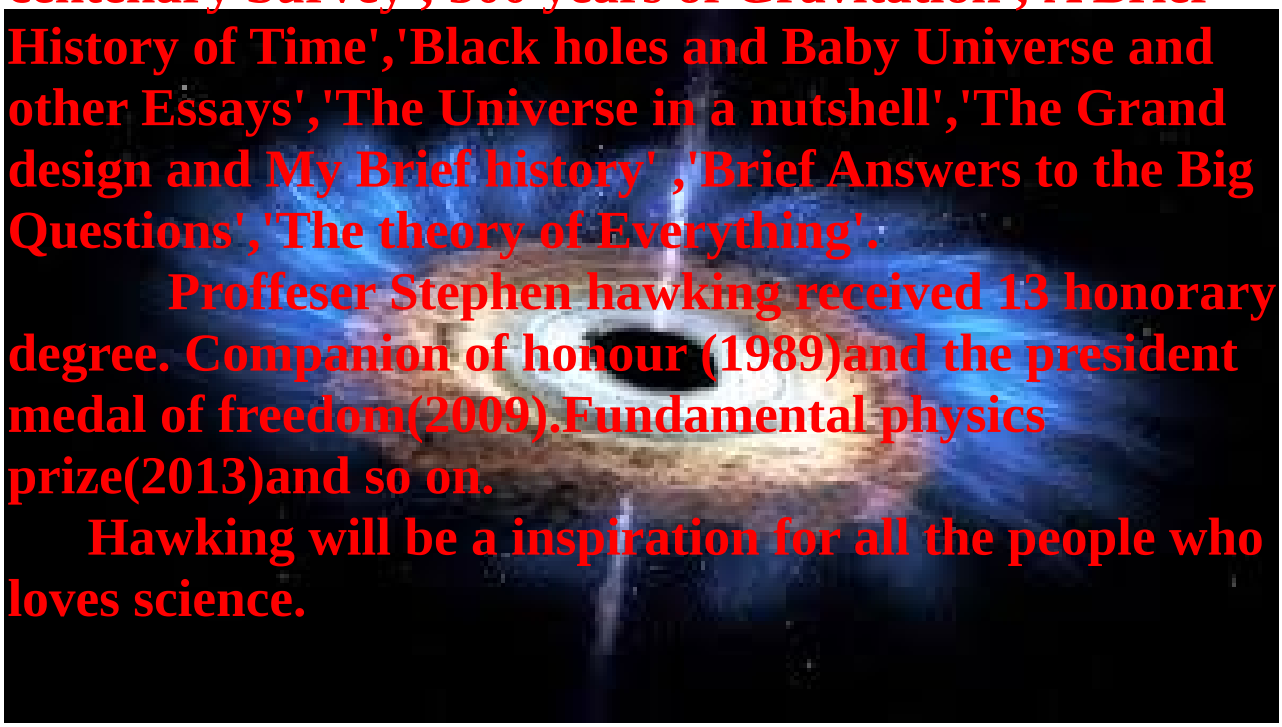


Stephen William Hawking CH CBE FRS FRSA was an English theoretical physicist, cosmologist, and author, who was director of research at the Centre for Theoretical Cosmology at the University of Cambridge at the time of his death. Proffeser Stephen William hawking was born on 8th January (exactly 300 years after the death of Galileo) in Oxford England. His parents house was in north London but during the second world war Oxford was considered as a safer place to have babies . His family then moved to St. albans . From there he went to school and in 1952 to oxford university He selected Physics . In October 1962 he arrived at Department of applied mathematics and Theoretical physics in Cambridge university for the study of Cosmology.

Hawking was affected with ALS a motor neurone disease .Doctor said that he would only have a shot life span ,but his strong ambition keeped him alive He gained his phd in 1965.He was elected as the fellow of royal society .He then held the position of Lucasion proffeser of mathematics. Hawking worked on the basic laws which leads the Universe. With roger penrose he showed that einstien's general theory of relativity implies space and time would have a begining in the Big bang and end in black holes (1970). he discovered that black holes are not completely black but rather should emit 'Hawking 'radiation and eventuly evaporate and disappear (1974). Universe has no end.

His Spouse Elaine mason and Jane Hawking. His children are Lucy Hawking, Robert Hawking, Timothy Hawking

His important works includes , 'The large scale structure of space time','General relativity;An einstein centenary Survey','300 years of Gravitation','A Brief History of Time','Black holes and Baby Universe and other Essays','The Universe in a nutshell','The Grand design and My Brief history' ,'Brief Answers to the Big Questions','The theory of Everything'.



Proffeser Stephen hawking received 13 honorary degree. Companion of honour (1989)and the president medal of freedom(2009).Fundamental physics prize(2013)and so on.

Hawking will be a inspiration for all the people who loves science.

BLACK HOLE

A black is region of space time exhibiting such strong gravitational effects that nothing−not even particles electro magnetic such as light− can escape from inside it. The boundary of region from which no escape is possible is called the event horizon. Although the event horizon has an enormous effect of the fate and circumstances of an object crossing it , no locally detectable features appear to be observed. In many ways a black hole acts like an ideal black body,as it reflects no light. Moreover,quantum field theory in curved space−time predicts that event horizons emit hawking radiation ,with the same spectrum as a black body of temperature inversely proportional to itˈs mass. This temperature is on the order of billionths of a kelvin for black holes of stellar mass, making it essential impossible to observe.

Objects whose gravitational fields are too strong for light to escape where considered in the eighteenth century by John Michelle and Pierre −simon Laplace. The first modern solution of general relativity that would characterized a black hole was found by Karl schwarzschild in 1916,although its interpretation as a region of space from which nothing can escape was first published by David finkelestein in 1958. Black holes were long considerate a mathematical curiosity; it was during in 1960s that theoretical work showed they were a genertic prediction of general relativity. The discovery of neutron stars late 1960s sparked interest in gravitationally collapsed compact objects as a possible astrophysical reality.

THOMAS ALVA EDISON

EARLY LIFE

Born:11February 1847

Died:18 october 1931

singnature:

Thomas Edison was born in 1847 in milan,ohio,and grew up in port Huron,Michigan.He was the seventh and the last child of samuel ogden Edison jr. And Nancy Mathew Elliott His father,the son of a Loyalist refugee,had moved as a boy with the family from Nova scotia, setting in southwestern Ontario in a village known as shewsbury,later vienna,by 1896.His father ,samuel jr.had earlier fought in the war of 1812 as captian of the first Middlesex Regiment.by By contrast,samuel jr.`s struggle found him on the losing side, and he crossed into the United state at sarnia-port Huron.Once across

the border,he foundhis way to milan,Ohio. His patrilineal family line was dutch By way of jersy the surname had originally
been Edeson

Edison Innovation with Electric Light

In 1878, Edison focused on inventing a safe, inexpensive electric light to replace the gaslight–a challenge that scientists had been grappling with for the last 50 years. With the help of prominent financial backers like J.P Morgan and the Vanderbilt family, Edison set up the Edison Electric Light Company and began research and development. He made a breakthrough in October 1879 with a bulb that used a platinum filament, and in the summer of 1880 hit on carbonized bamboo as a viable alternative for the filament, which proved to be the key to a long-lasting and affordable light bulb. In 1881, he set up an electric light company in Newark, and the following year moved his family to new york Though Edison's early incandescent lighting systems had their problems, they were used in such acclaimed events as the Paris Lighting Exhibition in

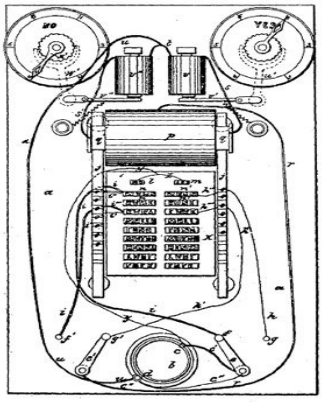
1881 and the Crystal Palace in London in 1882. Competitors soon emerged, notably George Westinghouse, a proponent of alternating or AC current (as opposed to Edison's direct or DC current). By 1889, AC current would come to dominate the field, and the Edison General Electric Co. merged with another company in 1892 to become General Electric Co.

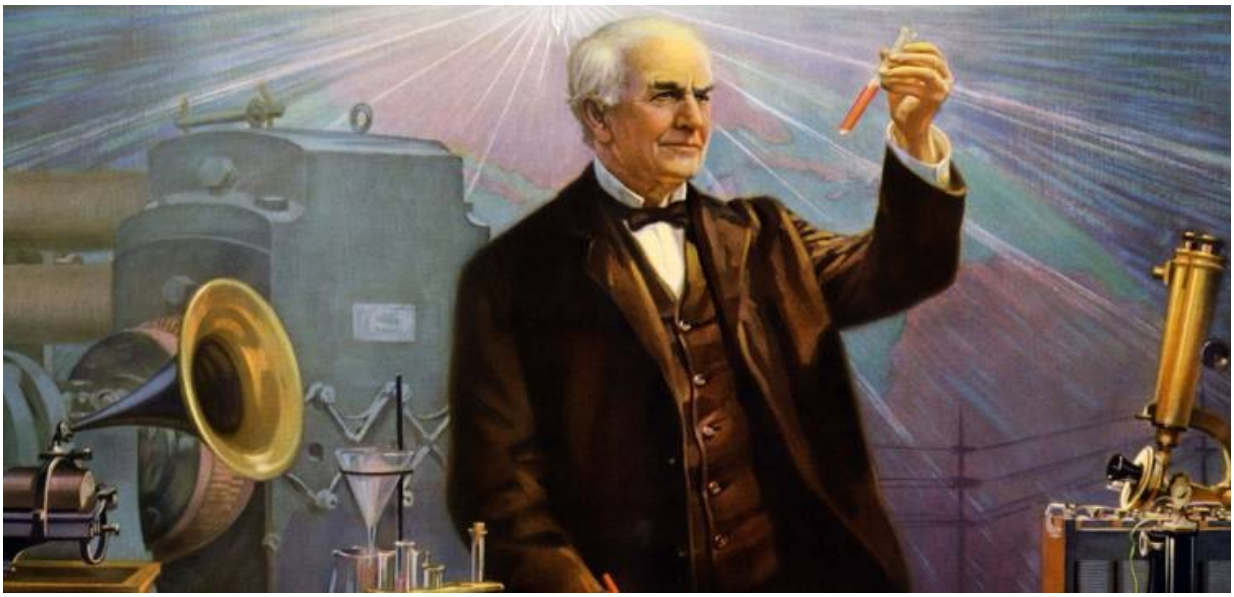
Edison's Emergence as a Leading Inventor

From 1870 to 1875, Edison worked out of Newark, New jersy, where he developed telegraph-related products for both Western Union Telegraph Company (then the industry leader) and its rivals. Edison's mother died in 1871, and that same year he married 16-year-old Mary Stillwell. Despite his prolific telegraph work, Edison encountered financial difficulties by late 1875, but with the help of his father was able to build a laboratory and machine shop in Menlo Park, New Jersey, 12 miles south of Newark.In 1877, Edison developed the carbon transmitter, a device that improved the audibility of the telephone by making it possible to transmit voices at higher volume and with more clarity. That same year, his work with the telegraph and telephone led him to invent the phonograph, which recorded sound as indentations on a sheet of paraffin-coated paper; when the paper was moved beneath a stylus, the sounds were reproduced. The device made an immediate splash, though it took years

before it could be produced and sold commercially, and the press dubbed Edison “the Wizard of Menlo Park.”

THE ELECTROGRAPHIC VOTE RECORDER: As Edison's first patent, this device permitted voters to push a 'yes' or 'no' switch instead of writing their vote.

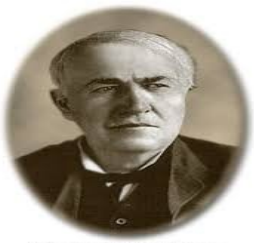




Death

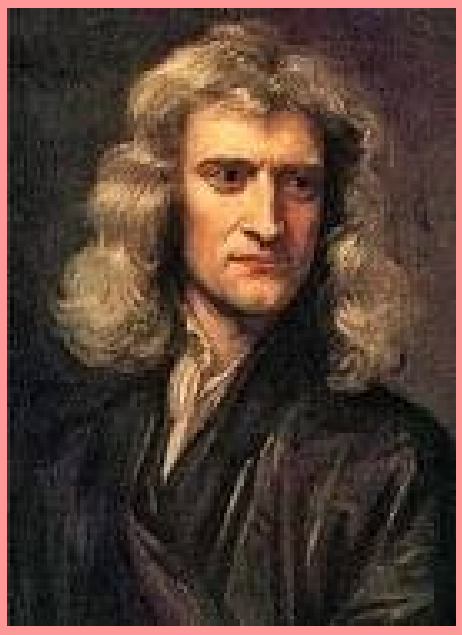
Edison died of complications of diabetes on October 18, 1931, in his home, "Glenmont" in Llewellyn Park in West Orange, New Jersey, which he had purchased in 1886 as a wedding gift for Mina. Rev. Stephen J. Herben officiated at the funeral;Edison is buried behind the home.

Edison's last breath is reportedly contained in a test tube at The Henry Ford museum near Detroit. Ford reportedly convinced Charles Edison to seal a test tube of air in the inventor's room shortly after his death, as a memento. A plaster death mask and casts of Edison's hands were also made. Mina died in 1947.



Thomas Alva Edison
(1847-1931)

SIR ISSAC NEWTON



Born: 4 January 1643
Died : 31 march 1727

signature

Sir issac newton was an English physicist,mathematician,astronomer,theologian,and author. Who is widely recognised as one of the most influental scientist of all time,and a key figure in the scientific revolution. His book philosophiae Naturalis principa mathematica ,first published in 1687,laid the

foundations of classical mechanics. Newton also made seminal contributions of optics, and shares credit with Gottfried Wilhelm Leibniz for developing the infinitesimal calculus.

In principia,Newton formulated the laws of motion and universal gravitation that formed the dominant scientific viewpoint until it was superseded by the theory of relativity. Newton used his mathematical descriptions of gravity to prove Kepler's laws of planetary motion,account of tides, the trajectories of comets, the precession of the equinoxes and other phenomena,eradicating solar system's heliocentricity. He

demonstrated that the motion of objects on earth and celestial bodies could be accounted by the same principles. Newton's inference that the earth is an oblate spheroid was later confirmed by the geodetic measurement of maupertuis,La condamine, and others,Convincing most European scientists of the superiority of Newtonian mechanics over earlier systems.

Newton built the first practical reflecting telescope and developed a sophisticated theory of colour based on the observation that a prism separates white light into the colour of the visible spectrum. His work on light was collected in his highly influential book optics, Published

in 1704. He also formulated an empirical law of cooling, made the first theorectical calculation of the speed of sound,and introduced the notion of a Newtonian fluid. In addition to his work on calculus, as a mathematician Newton contributed to the study of power series, generalised the binomial theorem to non-integer exponents, developed a method for approximating the roots of a function,and classified most of the cubic plane curves.

Newton was a fellow of trinity collage and the second Lucasian professor of mathematics at he unversity of Cambridge. He was a devout, but unorthodox, Christian who privately rejected the doctrine of the trinity.Unusually for a member of the Cambridge faculty of the day, he refused to take holy orders in the church of england.Beyond his work on the mathematical sciences, Newton dedicated much of his time to the study of alchemy and biblical chronology. but most of his work in those areas remained unpublished until long after his death. Politically and personally tied to the Whig party,Newton served two brief terms as member of of parliment for the university of Cambridge,in 1689–90 and 1701–02. He was knighted by queen Anne in 1705 and spent the last three decades of his life in London, serving as warden and master of royal mint, as well as president of the royal society

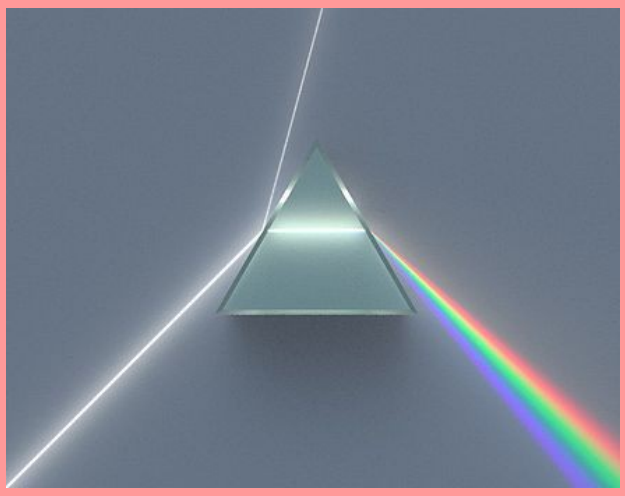
Death

Newton died in his sleep in London on 20 March 1727. . After his death, Newton's hair was examined and found to contain mercury. Mercury poisoning could explain Newton's eccentricity in late life.

Newton's reflecting telescope

The first reflecting telescope built by Sir Isaac Newton in 1668 is a landmark in the history of telescopes, being the first known successful reflecting telescope. It was the prototype for a design that later came to be called a Newtonian telescope.

Newton's colour spectrum

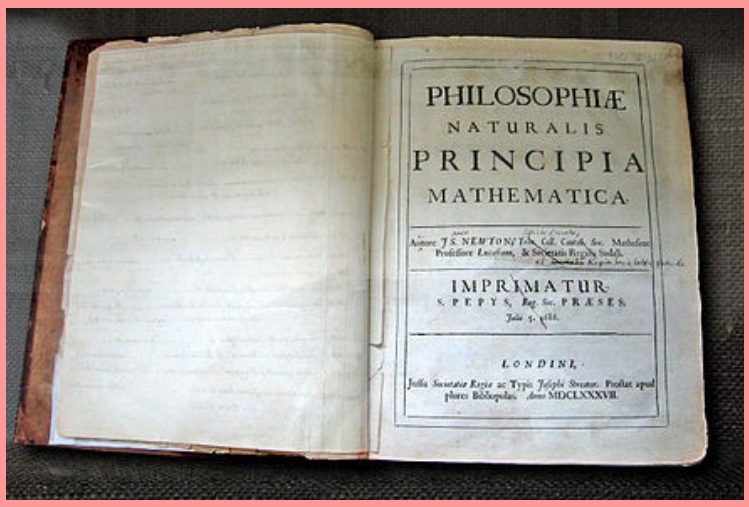


dispersive prism

Illustration of a dispersive prism separating white light into the colours of the spectrum, as discovered by Newton.

He showed that coloured light does not change its properties by separating out a coloured beam and shining it on various objects, and that regardless of whether reflected, scattered, or transmitted, the light remains the same colour. Thus, he observed that colour is the result of objects interacting with already-coloured light rather than objects generating the colour themselves. This is known as Newton's theory of colour.

Newtons principia


PHILOSOPHIÆ
NATURALIS
PRINCIPIA
MATHEMATICA
IMPRIMATUR
S. PEPYS, Reg. Soc. PRÆSES.
LONDINI,

Newton's own copy of his principia, with hand-written corrections for the second edition, in the wren Library at Trinity collage, Cambridge

Newton's apple tree

Reputed descendants of Newton's apple tree at_Trinity collage, Cambridge, the Cambridge university botanic garden, and the instituto balseiro library garden in Argentina.

old age of newton

Newton's law

First law

Newton's first law state that every object will remain at rest or in uniform motion in a straight

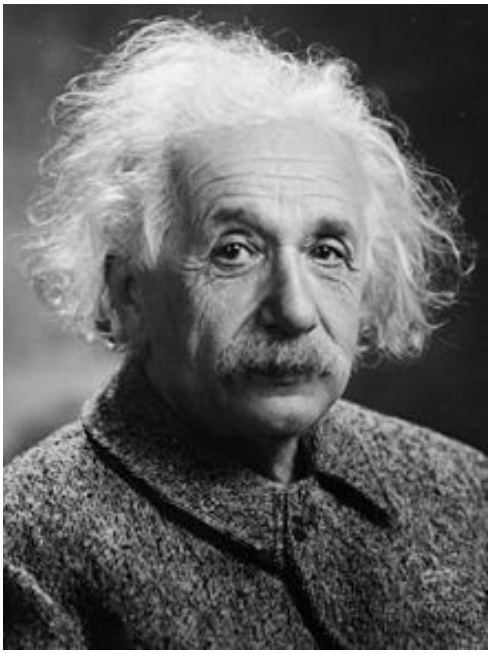
second law

The acceleration of an object as produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, and inversely proportional to the mass of the object.

Third law

For every action, there is an equal and opposite reaction.

Albert Einstein



Born 14 march 1879
Ulm Kingdom of wuttemberg
German Empire

Died 18 April 1955 (aged 76)
Princeton,New Jersey,US

Signature 

Near the Beginning of his career ,Einstein thought that Newtonian mechanics was no longer enough to reconcile the laws of classical mechanics with the laws of the electromagnetic field. This led him to develop his special theory of relativity during his time at the swiss patent office in bern (1902-1909),Switzerland. However he realized that the principle of relativity could also be extended to gravitational fields, and he published a paper on general relativity in 1916 with his theory of gravitation. He continued to deal with problems of statisticalmechanisc and quantum theory, which led to

his explanations of particle theory and the motion of molecules. He also investigated the thermal properties of light which laid the foundation of the photon theory of light. In 1917, he applied the general theory of relativity to model the structure of the universe. Except for one year in Prague, Einstein lived in Switzerland between 1895 and 1914, during which time he renounced his German citizenship in 1896, then received his academic diploma from the Swiss federal polytechnic school (later the Eidgenossische Technische Hochschule, ETH) in Zürich in 1900. After being stateless for more than five years, he acquired Swiss citizenship in 1901, which he kept for the rest of his life. In 1905, he was awarded a PhD by the University of Zurich. The same year, he published four groundbreaking papers during his renowned *annusmirabilis* (miracle year) which brought him to the notice of the academic world at the age of 26. Einstein taught theoretical physics at Zurich between 1912 and 1914 before he left for Berlin, where he was elected to the Prussian Academy of_Science. In 1933, while Einstein was visiting the United States, Adolf Hitler came to power. Because of his Jewish background, Einstein did not return to Germany.[13] He settled in the United States and became an American citizen in 1940.[14] On the eve of World War II, he endorsed a letter to President Franklin D. Roosevelt alerting him to the potential development of "extremely powerful bombs of a new type" and recommending that the US begin similar research. This eventually led to the Manhattan Project. Einstein supported the Allies, but he generally denounced the idea of using nuclear fission as a weapon. He signed the Russell–Einstein Manifesto with British philosopher Bertrand Russell, which highlighted the danger of nuclear weapons. He was affiliated with the Institute for Advanced Study in Princeton, New Jersey, until his death in 1955. Einstein published more than 300 scientific papers and more than 150 non-scientific works.[11][15] His intellectual achievements and originality have made the word "Einstein" synonymous with "genius".[16] Eugene Wigner wrote of Einstein in comparison to

his contemporaries that "Einstein's understanding was deeper even than Jancsi von Neumann's. His mind was both more penetrating and more original than von Neumann's. And that is a very remarkable statement.

education

The Einsteins were non-observant Ashkenazi Jews, and Albert attended a Catholic elementary school in Munich, from the age of 5, for three years. At the age of 8, he was transferred to the Luitpold Gymnasium (now known as the Albert Einstein Gymnasium), where he received advanced primary and secondary school education until he left the German Empire seven years later.In 1894, Hermann and Jakob's company lost a bid to supply the city of Munich with electrical lighting because they lacked the capital to convert their equipment from the direct current (DC) standard to the more efficient alternating current (AC) standard.[19] The loss forced the sale of the Munich factory. In search of business, the Einstein family moved to Italy, first to Milan and a few months later to Pavia. When the family moved to Pavia, Einstein, then 15, stayed in Munich to finish his studies at the Luitpold Gymnasium. His father intended for him to pursue electrical engineering, but Einstein clashed with authorities and resented the school's regimen and teaching method. He later wrote that the spirit of learning and creative thought was lost in strict rote learning. At the end of December 1894, he travelled to Italy to join his family in Pavia, convincing the school to let him go by using a doctor's note.[20] During his time in Italy he wrote a short essay with the title "On the Investigation of the State of the Ether in a Magnetic Field".Einstein always excelled at math and physics from a young age, reaching a mathematical level years ahead of his peers. The twelve year old Einstein taught himself algebra and Euclidean geometry over a single summer. Einstein also independently discovered his own original proof of the Pythagorean theorem at age 12.[23] A family tutor Max Talmud

says that after he had given the 12 year old Einstein a geometry textbook, after a short time "[Einstein] had worked through the whole book. He thereupon devoted himself to higher mathematics... Soon the flight of his mathematical genius was so high I could not follow."[24] His passion for geometry and algebra led the twelve year old to become convinced that nature could be understood as a "mathematical structure".[24] Einstein started teaching himself calculus at 12, and as a 14 year old he says he had "mastered integral and differential calculus".[25]
At age 13, Einstein was introduced to Kant's *Critique of Pure Reason*, and Kant became his favorite philosopher, his tutor stating: "At the time he was still a child, only thirteen years old, yet Kant's works, incomprehensible to ordinary mortals, seemed to be clear to him."[24]

In 1895, at the age of 16, Einstein took the entrance examinations for the Swiss Federal Polytechnic in Zurich (later the Eidgenossische Technische Hochschule, ETH). He failed to reach the required standard in the general part of the examination,but obtained exceptional grades in physics and mathematics.On the advice of the principal of the Polytechnic, he attended the Argovian cantonal school (gymnasium) in Aarau, Switzerland, in 1895 and 1896 to complete his secondary schooling. While lodging with the family of professor Jost Winteler, he fell in love with Winteler's daughter, Marie. Albert's sister Maja later married Winteler's son Paul. In January 1896, with his father's approval, Einstein renounced his citizenship in the German Kingdom of Wurttemberg to avoid military service.In September 1896, he passed the Swiss Matura with mostly good grades, including a top grade of 6 in physics and mathematical subjects, on a scale of 1–6.At 17, he enrolled in the four-year mathematics and physics

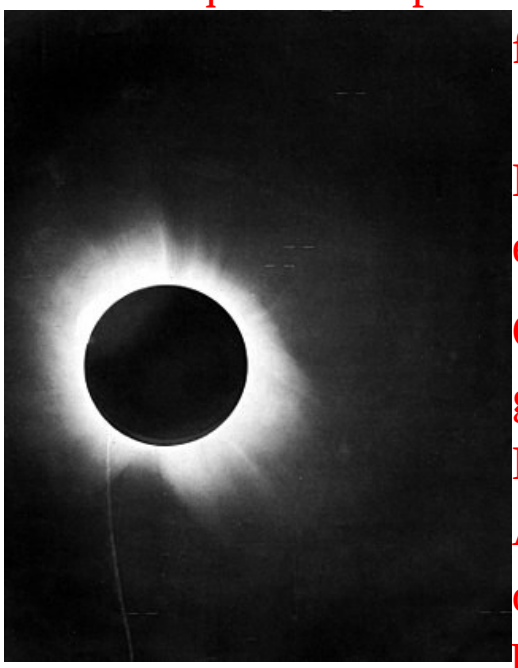
teaching diploma program at the Zürich Polytechnic. Marie Winteler, who was a year older, moved to Olsberg, Switzerland, for a teaching post. Einstein passed the exams in Maths and Physics and was awarded the Federal Polytechnic teaching diploma. There have been claims that Marić collaborated with Einstein on his 1905 papers,known as the *Annus Mirabilis* papers, but historians of physics who have studied the issue find no evidence that she made any substantive contributions.

General relativity

General relativity and the equivalence principle

Main article: History of general relativity

See also: Equivalence principle, Theory of relativity, and Einstein field equations



Eddington's photograph of a solar eclipse

General relativity (GR) is a theory of gravitation that was developed by Einstein between 1907 and 1915. According to general relativity, the observed gravitational attraction between masses results from the warping of space and time by those masses. General relativity has developed into an essential tool in modern astrophysics. It provides the foundation for the current understanding of black holes, regions of space where gravitational attraction is so strong that not even light can escape.

As Einstein later said, the reason for the development of general

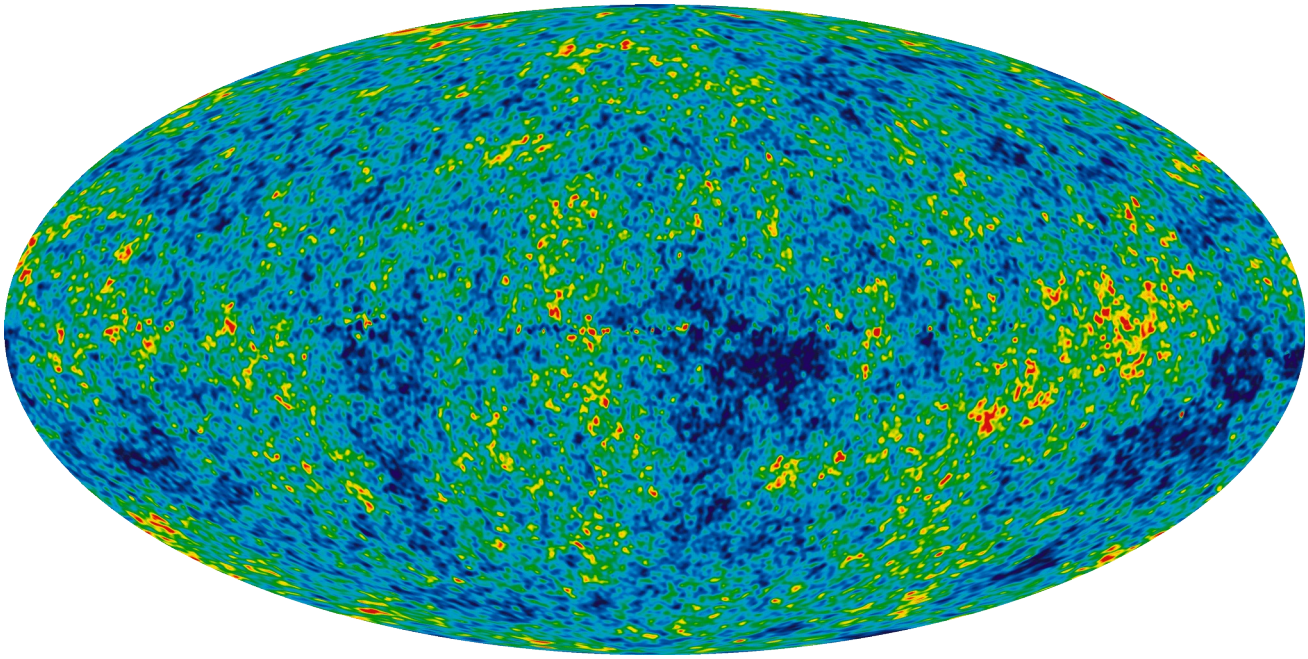
relativity was that the preference of inertial motions within special relativity was unsatisfactory, while a theory which from the outset prefers no state of motion (even accelerated ones) should appear more satisfactory. Consequently, in 1907 he published an article on acceleration under special relativity. In that article titled "On the Relativity Principle and the Conclusions Drawn from It", he argued that free fall is really inertial motion, and that for a free-falling observer the rules of special relativity must apply. This argument is called the equivalence principle. In the same article, Einstein also predicted the phenomena of gravitational time dilation, gravitational red shift and deflection of light.In 1911, Einstein published another article "On the Influence of Gravitation on the Propagation of Light" expanding on the 1907 article, in which he estimated the amount of deflection of light by massive bodies. Thus, the theoretical prediction of general relativity could for the first time be tested experimentally.

In 1916, Einstein predicted gravitational waves, ripples in the curvature of spacetime which propagate as waves, traveling outward from the source, transporting energy as gravitational radiation. The existence of gravitational waves is possible under general relativity due to its Lorentz invariance which brings the concept of a finite speed of propagation of the physical interactions of gravity with it. By contrast, gravitational waves cannot exist in the Newtonian theory of gravitation, which postulates that the physical interactions of gravity propagate at infinite speed.
The first, indirect, detection of gravitational waves came in the 1970s through observation of a pair of closely orbiting neutron stars, PSR B1913+16. The explanation of the decay in their orbital period was that they were emitting gravitational waves.Einstein's prediction was confirmed on 11 February 2016, when researchers

at published the first observation of gravitational waves, detected on Earth on 14 September 2015, exactly one hundred years after the prediction.

In June 1913, the Entwurf ("draft") theory was the result of these investigations. As its name suggests, it was a sketch of a theory, less elegant and more difficult than general relativity, with the equations of motion supplemented by additional gauge fixing conditions. After more than two years of intensive work, Einstein realized that the hole argument was mistaken and abandoned the theory in November 1915.

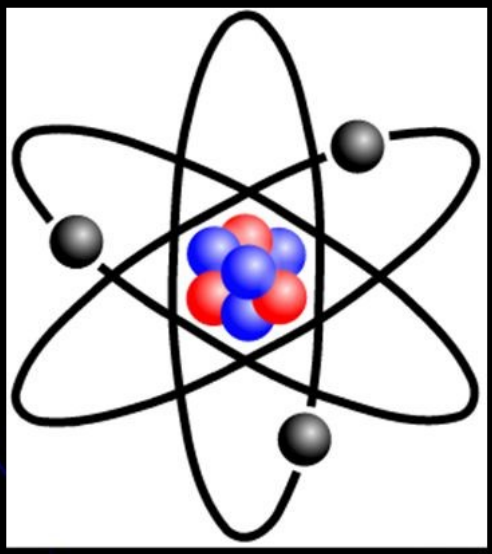
Physical cosmology



In 1917, Einstein applied the general theory of relativity to the structure of the universe as a whole. He discovered that the general field equations predicted a universe that was dynamic, either contracting or expanding. As observational evidence for a dynamic universe was not known at the time, Einstein introduced a new term, the cosmological constant, to the field equations, in order to allow the theory to predict a static universe.

ATOMIC THEORY

The History of Atomic Theory

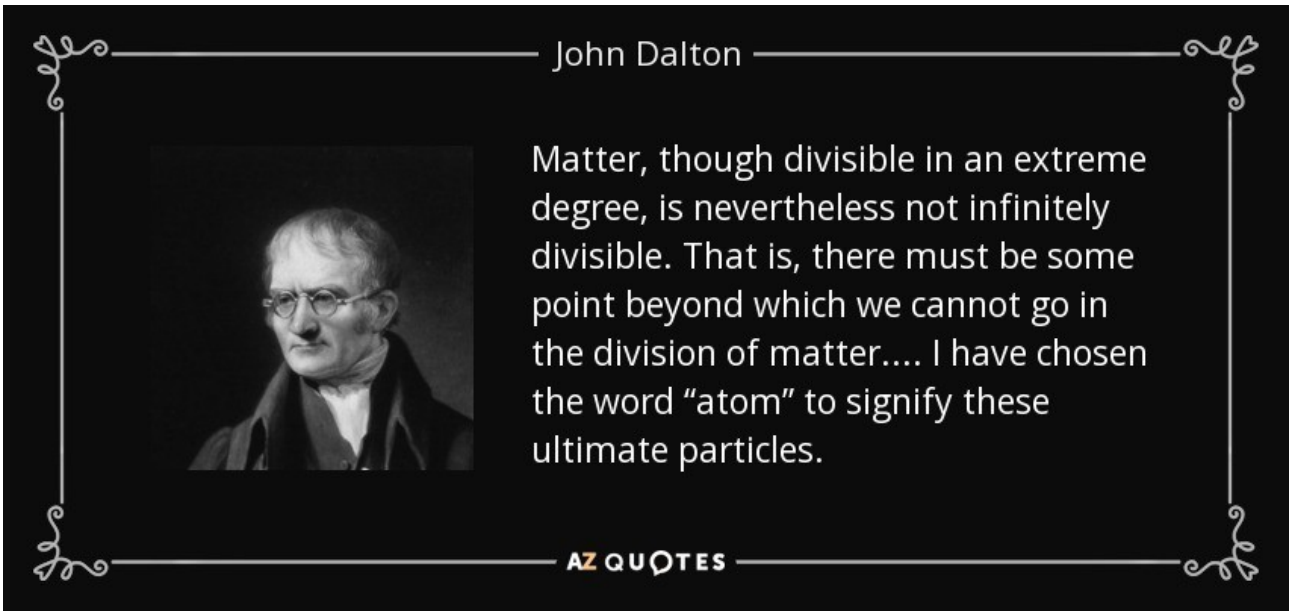


In chemistry and physics.atomic theory is a scientific theory of the nature of matter .which states that matter is composed of discrete unite called atoms.it began as a philsophical concept in ancient greek and enterd the scientific mainsteam in the early 19th century when discoveries in the field of chemistry showed that matter did indeed behave as if it were made up of atmos.

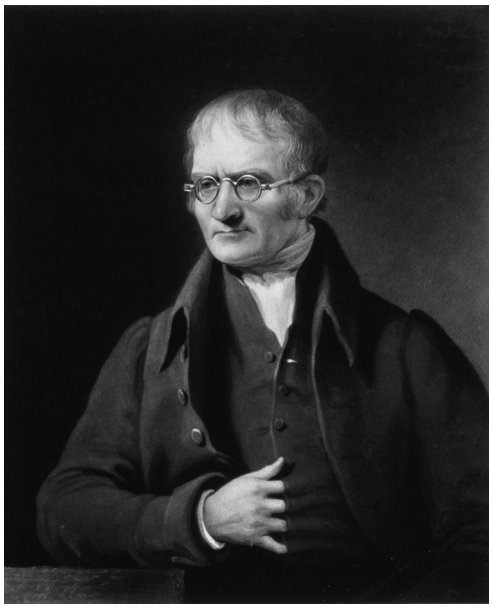
The word atom comes form the ancient greek adjective atomos, meaning indivisible. 19th century chemists bagan using the term in connection with the growing number of irreducibel chemical elements. Around the turn of the 20th century through various expreiments with eletromagntism and radioactivity. Physicists

discoverd that so called uncuttable atom was actually a conglomerate of various subatomic particles which can exist sperticly from each other. In fast, in certain extreme environment, such as neutron stare, extreme temperature and pressure prevents atoms from existingat all. Since atomes ware found to be divisible,physicists later invented the ementary particles to describe the unicuttable

n chemistrt and physics.atomic theory is a scientific theory of the nature of matter .which states that matter is composed of discrete unite called atoms.it began as a philsophical concept in ancient greece and enterd the scientific mainsteam in the earrly 19th century when discoveries in the field of chemistry showed that matter did indeed behave as if it were made up of atmos.


John Dalton
Matter, though divisible in an extreme degree, is nevertheless not infinitely divisible. That is, there must be some point beyond which we cannot go in the division of matter.... I have chosen the word “atom” to signify these ultimate particles.
AZ QUOTES

John Dalton



Born	6 September 1766 Eaglesfield, Cumberland, England
Died	27 July 1844 (aged 77) Manchester, Lancashire, England
Nationality	British
Known for	Atomic theory, Law of Multiple Proportions, Dalton's Law of Partial Pressures, Daltonism
Awards	Royal Medal (1826)

John Dalton was born into a Quaker family in Eaglesfield, near Cockermouth, in Cumberland, England. His father was a botanist. He received his early education from his father and from Quaker John Fletcher, who ran a private school in the nearby village of Pardshaw Hall. Dalton's family was too poor to support him for long and he began to earn his living at the age of ten in the service of a wealthy local Quaker, Elihu Robinson. It is said he began teaching at a local school at age 12 and became proficient in Latin at age

When he was 15, Dalton joined his older brother Jonathan in running a Quaker school in Kendal, Westmorland, about 45 miles (72km) from his home. Around the age of 23 Dalton may have considered studying law or medicine, but his relatives did not encourage him, perhaps because being a Dissenter, he was barred from attending English universities. He acquired much scientific knowledge from informal instruction by John Gough, a blind philosopher who was gifted in the sciences and arts. At the age of 27 he was appointed teacher of mathematics and natural philosophy at the "New College" in Manchester, a dissenting academy (the lineal predecessor, following a number of changes of location, of Harris Manchester College, Oxford). He remained there until the age of 34, when the college's worsening financial

situation led him to resign his post and begin a new career as a private tutor in mathematics and natural philosophy.

Meteorology

Dalton's early life was influenced by a prominent Eaglesfield Quaker, Elihu Robinson, a competent meteorologist and instrument maker, who interested him in problems of mathematics and meteorology. During his years in Kendal, Dalton contributed solutions to problems and answered questions on various subjects in The Ladies' Diary and the Gentleman's Diary. In 1787 at age 21 he began his meteorological diary in which, during the succeeding 57 years, he entered more than 200,000 observations.He rediscovered George Hadley's theory of atmospheric circulation (now known as the Hadley cell) around this time. In 1793 Dalton's first publication, Meteorological Observations and Essays, contained the seeds of several of his later discoveries but despite the originality of his treatment, little attention was paid to them by other scholars. A second work by Dalton, Elements of English Grammar, was published in 1801.

Measuring mountains

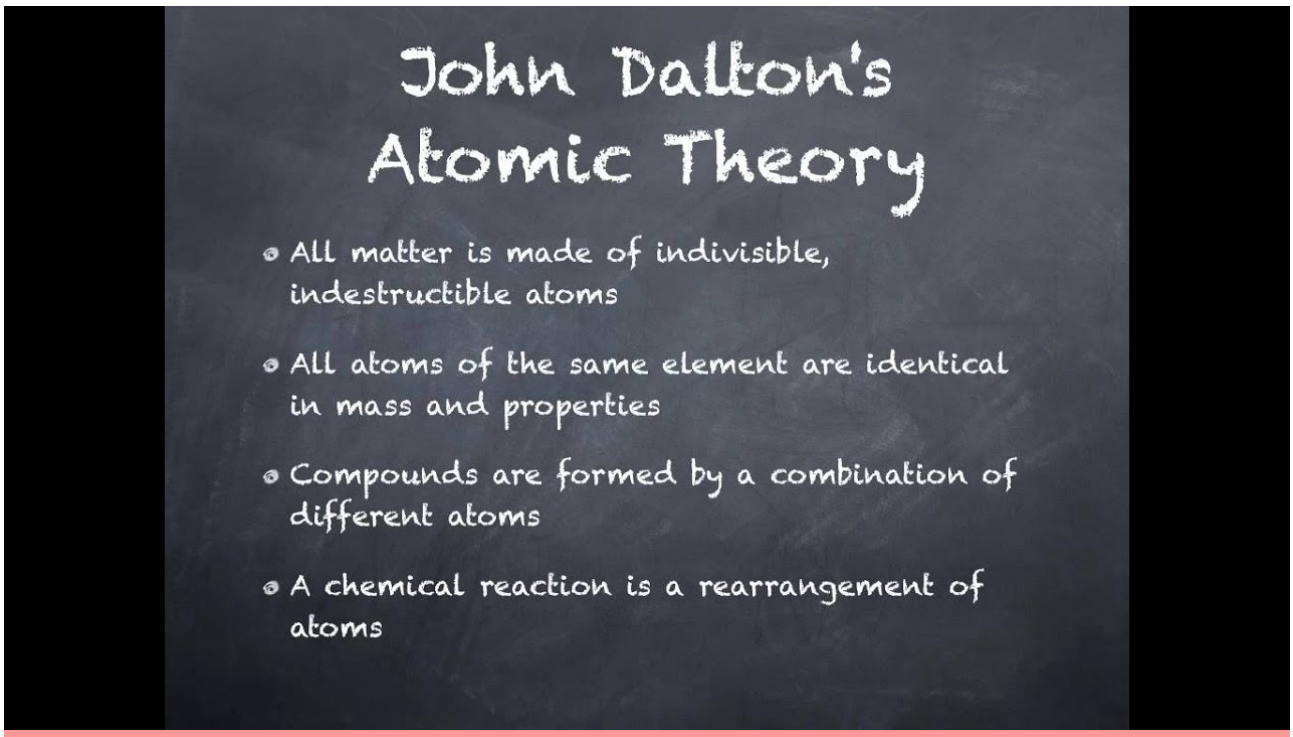
After leaving the Lake District, Dalton returned annually to spend his holidays studying meteorology, something which involved a lot of hill-walking. Until the advent of aeroplanes and weather balloons, the only way to make measurements of temperature and humidity at altitude was to climb a mountain. Dalton estimated the height using a barometer. The Ordnance Survey did not publish maps for the Lake District until the 1860s. Before then, Dalton was one of the few authorities on the heights of the region's mountains. He was often accompanied by Jonathan Otley, who also made a study of the heights of the local peaks, using Dalton's figures as a comparison to check his work. Otley

published his information in his map of 1818. Otley became both an assistant and a friend to Dalton.

Colour blindness

In 1794, shortly after his arrival in Manchester, Dalton was elected a member of the Manchester Literary and Philosophical Society, the "Lit & Phil", and a few weeks later he communicated his first paper on "Extraordinary facts relating to the vision of colours", in which he postulated that shortage in colour perception was caused by discolouration of the liquid medium of the eyeball. As both he and his brother were colour blind, he recognised that the condition must be hereditary.

Although Dalton's theory lost credence in his lifetime, the thorough and methodical nature of his research into his visual problem was so broadly recognised that Daltonism became a common term for colour blindness. Examination of his preserved eyeball in 1995 demonstrated that Dalton had a less common kind of colour blindness, deuteroanopia, in which medium wavelength sensitive cones are missing (rather than functioning with a mutated form of pigment, as in the most common type of colour blindness, deuteroaomaly). Besides the blue and purple of the optical spectrum he was only able to recognise one colour, yellow, or, as he said in a paper,



ARYABHATA

Born : 476CEKusumapura (Pataliputra) (present day Patna)

Died:550 CE

Aryabhata was an acclaimed mathematican-astronomer.HE was born in kusumapura(presnt dy Patna)in Bihar,India.His contribution's were unstopable in the field of Mathematics,Science

astronomy,etc and Yet he has not been accorded the recognition in world history of science. At the age of 24,he wrote his famed “Aryabhatiya”.He was aware of the concept of zero , as well as the use of large number up to 1018 . He was the first to calculate the value for 'pi' accurately to the fourth decimal point . He devised the formula for calculating areas of triangle and circles . He calculated the perimeter of the Earth as 62,832 miles , which is an excellent approximation , and suggested that the clear rotation of the heaven was due to the axial rotation of the earth on its axis . He was the first known as astronomer to devise the continuous counting of solar days , suggesting each day with a number . He made sure that the planets shine due to the reflection of sunlight , and that the eclipses occur due to the shadow of moon and earth . His

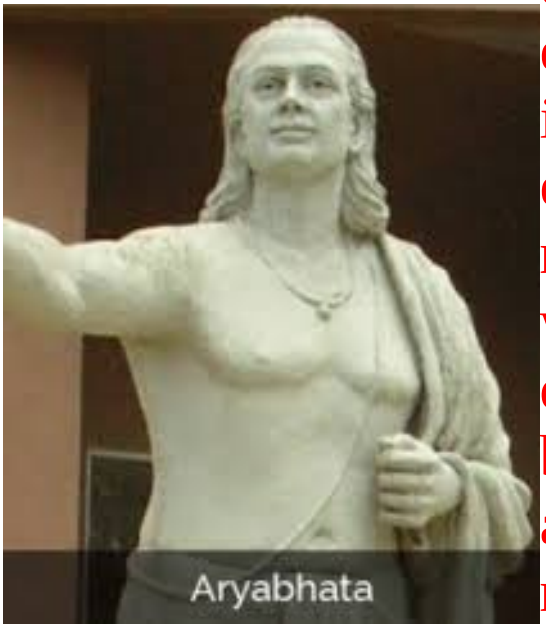
observations discount the “flat earth”concept , and lay the fountation for the belief that earth and other planets other the sun

EDUCATION

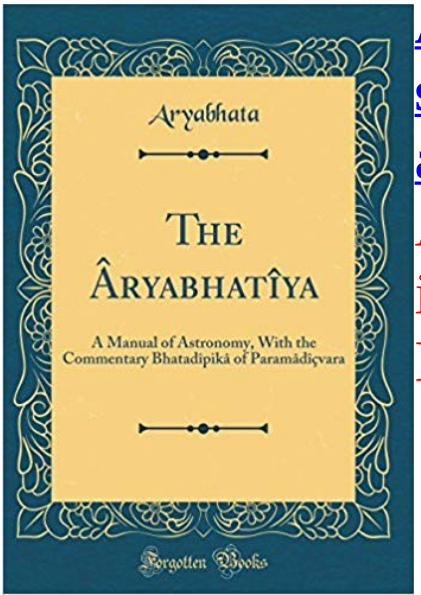
It is fairly certain that , at some point , he went to kusumapura for advanced studies and lived there for some. Both Hindu and Bhudist tradition as well as Bhaskara 1(CE 629), identify kusumapura as pataliputra (Patna). A verse mentions that Aryabhata was the head of an institution (kulapa) at kusumapura and because the university of Nalanda was in pataliputra at the time and had a n astronomical observatory, it is speculated that Aryabhata might have been the head of the Nalanda university as well .Aryabhata is also reputed to have set up an observatory at sun temple in Taregana , Bihar

CONTRIBUTION TO ASTRONOMY

The astronomical calculation and deductions suggested by aryabhata are extraordinary by the fact that he didn't have any modern equipment or instrument to do it. He also scattered that the earth is round in shape and rotates along its own axis , which forms the extension of day and night . Many situation beliefs were challenged by him and he presented scientific reason to prove them wrong.



He said that the moon has no light and shines because it reflects light from sun . He also proved wrong the false belief that eclipse is caused beacause of the shadows cast by the earth and moon Aryabhata used epicycles in a similar manner to the Greek Philosopher Ptolemy to illustrate the inconsistent movement of some planets . Aryabhata was made the head of Nalanda University by the Gupta ruler Buddhgupta.



Aryabhatiya – a treatise that solved various mysteries related to astronomy

Aryabhatiya is a treatise that includes various facts related to Hindu mathematics and astronomy

that appeared during those times. The treatise comprises of four chapters that are concerned with sine tables and astronomical constants. It also comprises of rules to calculate the longitudes of the planets by utilizing epicycles and eccentrics and also the rules related to trigonometry and calculation of eclipses. There is a maths section in the Aryabhatiya, which include various innovative methods for calculating the lengths of the chords of circles by using the half chord method unlike the Greeks who used the full chord method.

കേരളത്തിലെ ശലഭങ്ങൾ

വിലാസിനി

(Delias eucharis)

ഏറെ ഭംഗിയുള്ള ഒരിനം പൂമ്പാറ്റയാണ് വിലാസിനി.തെക്കെ ഏഷ്യൻ രാജ്യങ്ങളായ ഇന്ത്യ,ശ്രീലങ്ക ,മ്യാൻർ,തായ്ലൻറ് എന്നിവിടങ്ങളിൽ കാണപ്പെടുന്നു.കേരളത്തിലെ ഒട്ടുമിക്ക പ്റദേശങ്ങളിലും ഇവയെ കാണാം.

മനോഹരങ്ങളായ ഇടകലർന്ന നിറത്തിലുള്ള ചിറകുകളാണിവയ്ക്ക്. ചിറകിന്റെ അരികിൽ നിറയെ ചുവന്നപൊട്ടുകളുടെ ഒരു നിരതന്നെ കാണാം. കറുപ്പും മഞ്ഞയും ചുവപ്പും നീലയും വെള്ളയും ക്രുടിയ വിവിധ ആകൃതിയിലുള്ള പാടുകൾ ഈ ചിത്രശലഭത്തിന്റെ ചിറകിലുണ്ട്. ചിറകുകൾ വിടർത്തുമ്പോൾ വെളുപ്പോ,

ഇളം നീലയോ ആയിരിക്കും.

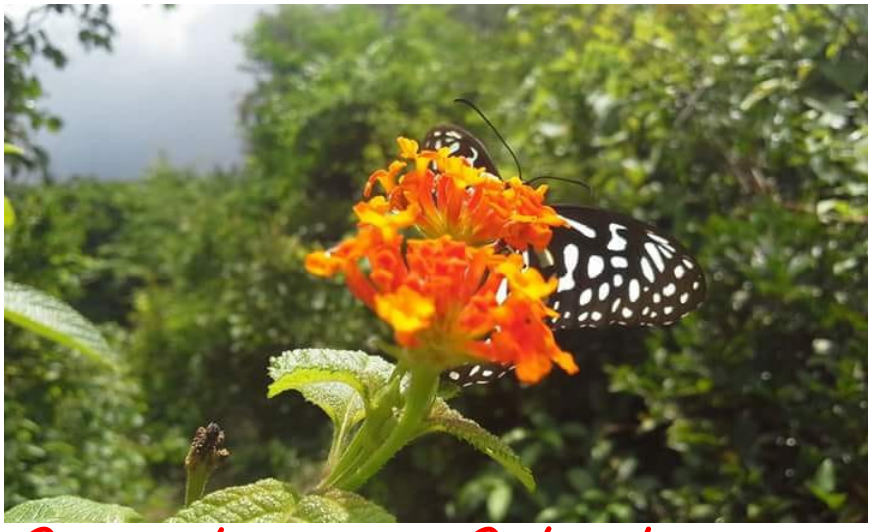
സാവധാനത്തിലാണ് ഇവയുടെ പറക്കൽ. ശത്രുവിനെ കാണുമ്പോൾ ചത്തതുപോലെ കിടന്ന് രക്ഷപ്പെടുന്ന കൗശലം ഇവയ്ക്കുണ്ട്.

ഇത്തിക്കണ്ണികളിലാണ് ഇവ മുട്ടയിടുന്നത്. മഞ്ഞ കലർന്ന പച്ചനിറമോ ഇരുണ്ട നിറമോ ഉള്ള ശലഭപ്പുഴുക്കൾക്ക് വെളുത്ത ചെറുപൊട്ടുകളുള്ള കറുത്ത തലയാണ്. ലാർവ്വകൾക്ക് വിഷാംശം ഉണ്ട്. അതിനാൽ ഇരപിടിയന്മാർ ഇതിനെ ഭക്ഷിക്കാറില്ല.

Scientific Classification

Kingdom: Animalia
Phylum : Arthropoda
Class: Insect a
Order:Lepdoptera
Family:Pieridae
Genus:Delia’s
Species: D. Eucharis

വഴന ശലഭം(Papilio clytia)



കിളിവാലൻ ശലഭങ്ങളിൽ ഉൾപ്പെടുന്ന വളരെ സാധാരണയായി കണ്ടുവരുന്ന വഴനവഴനശലഭത്തെ രണ്ടു രൂപത്തിൽ കാണാനാവുന്നതാണ്. വേഷപ്രച്ഛന്നം നടത്തുന്ന ഒരു ശലഭമാണ് വഴന ശലഭം. ചില വഴന ശലഭങ്ങൾ നീലക്കടുവയുടെ വേഷംകെട്ടാറുണ്ട്. മറ്റു ചിലവരെ കണ്ടാൽ അരളിശലഭമാണെന്ന് തോന്നും. വിഷമയമല്ലാത്തവയും ഭക്ഷണയോഗ്യവുമായ ഈ ശലഭം ഇരപിടിയൻമാരിൽ നിന്നും രക്ഷനേടാൻ ഭക്ഷണയോഗ്യമല്ലാത്ത നീലക്കടുവയേയും അരളിശലഭത്തെയും അനുകരിക്കുന്നു . നീലകടുവയെ അനുകരിക്കുന്ന രൂപം dissimilis എന്നും അരളിശലഭത്തെ അനുകരിക്കുന്ന രൂപം clytia എന്നും അറിയപെടുന്നു. രണ്ടു രൂപത്തിലും ഉള്ള ആൺ ശലഭങ്ങൾ ചെളിയൂറ്റൽ സ്വഭാവം കാണിക്കുന്നതായി കണ്ടെത്തിയിട്ടുണ്ട്

Scientific Classification

Kingdom:Animalia

Phylum:Arthropoda

Class:Insect a

Order:Lepidoptera

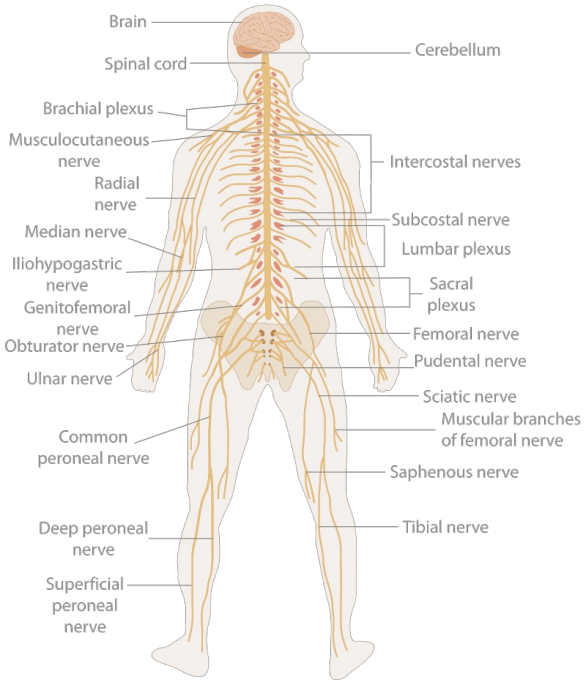
Family:Papilionidae

Genus:papilio

Species:Papilio Clytia

BIOLOGY

Nervous System

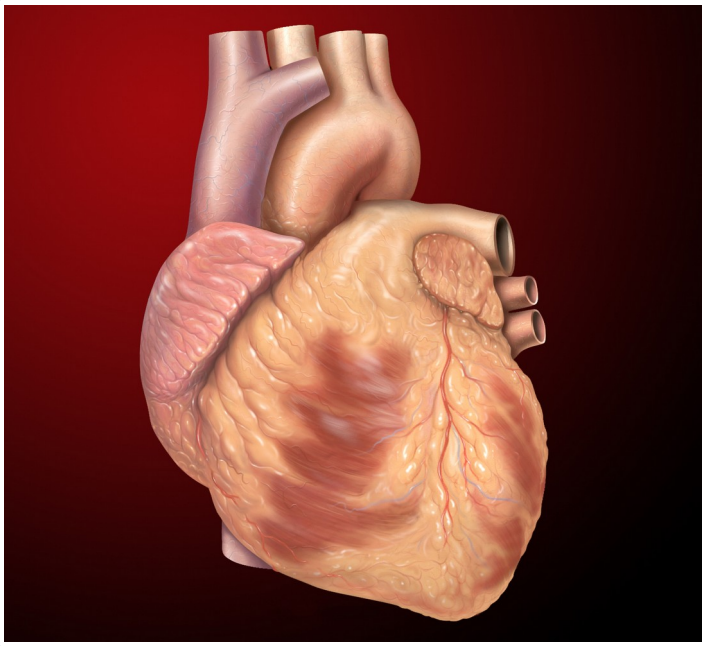


The nervous is the part of an animal that coordinates its actions by transmitting signals to and from different parts of its body. The nervous system detects environmental changes that impact the body, then works in tandem with the endocrine system to respond to such events. Nervous tissue firt arose in worm like organisms about 550 to 600 million years ago. In vertebrates it consists of two main parts, the central nervous system (CNS) and the peripheral nervous system (PNS). The CNS consists of the brain and spinal cord. The PNS consists mainly of nerves, which are enclosed bundles of the long fibers or axons, that connect

the CNS to every other part of the body. Nerves that transmit signals from the brain are called *motor* or *efferent* nerves, while those nerves that transmit information from the body to the CNS are called *sensory* or *afferent*. Spinal nerves serve both functions and are called *mixed* nerves. The PNS is divided into three separate subsystems, the somatic, autonomic, and enteric nervous systems. Somatic nerves mediate voluntary movement. The autonomic nervous system is further subdivided into the sympathetic and the parasympathetic nervous systems. The sympathetic nervous system is activated in cases of emergencies to mobilize energy, while the parasympathetic nervous system is activated when organisms are in a relaxed state. The enteric nervous system functions to control the gastrointestinal system. Both autonomic and enteric nervous systems function involuntarily. Nerves that exit from the cranium are called cranial nerves while those exiting from the spinal cord are called spinal nerves. At the cellular level, the nervous system is defined by the presence of a special type of cell, called the neuron, also known as a "nerve cell". Neurons have special structures that allow them to send signals rapidly and precisely to other cells. They send these signals in the form of electrochemical waves travelling along thin fibers called axons, which cause chemicals called neurotransmitters to be released at junctions called synapses. A cell that receives a synaptic signal from a neuron may be excited, inhibited, or otherwise modulated. The connections between neurons can form neural pathways, neural circuits, and larger networks that generate an organism's perception of the world and determine its behaviour. Along with neurons, the nervous

system contains other specialized cells called glial cells (or simply glia), which provide structural and metabolic support. Nervous systems are found in most multicellular animals, but vary greatly in complexity.The only multicellular animals that have no nervous system at all are sponges, placozoans, and mesozoans, which have very simple body plans. The nervous systems of the radially symmetric organisms ctenophores (comb jellies) and cnidarians (which include anemones, hydras, corals and jellyfish) consist of a diffuse nerve net. All other animal species, with the exception of a few types of worm, have a nervous system containing a brain, a central cord (or two cords running in parallel), and nerves radiating from the brain and central cord. The size of the nervous system ranges from a few hundred cells in the simplest worms, to around 300 billion cells in African elephants.
The central nervous system functions to send signals from one cell to others, or from one part of the body to others and to receive feedback. Malfunction of the nervous system can occur as a result of genetic defects, physical damage due to trauma or toxicity, infection or simply of ageing. The medical speciality of neurology studies disorders of the nervous system and looks for interventions that can prevent or treat them. In the peripheral nervous system, the most common problem is the failure of nerve conduction, which can be due to different causes including diabetic neuropathy and desalinating disorders such as multiple sclerosis and amyotrophic lateral sclerosis. Neuroscience is the field of science that focuses on the study of the nervous system

Heart



System : circulatory

Artery : Aorta, pulmonary trunk and right and left pulmonary arteries, right coronary artery, left main coronary artery

Vein : Superior vena cava, inferior vena cava,right and left pulmonary veins, great cardiac vein, middle cardiac vein, small cardiac vein, anterior cardiac veins

The **heart** is a muscular organ in most animals, which pumps blood through the blood vessels of the circulatory system.Blood provides the body with oxygen and nutrients, as well as assisting in the removal of metabolic wastes. In

humans, the heart is located between the lungs, in the middle compartment of the chest.

In humans, other mammals, and birds, the heart is divided into four chambers: upper left and right atria; and lower left and right ventricles.Commonly the right atrium and ventricle are referred together as the *right heart* and their left counterparts as the *left heart*. Fish, in contrast, have two chambers, an atrium and a ventricle, while reptiles have three chambers.In a healthy heart blood flows one way through the heart due to heart valves, which prevent backflow. The heart is enclosed in a protective sac, the pericardium, which also contains a small amount of fluid. The wall of the heart is made up of three layers: epicardium, myocardium, and endocardium.

The heart pumps blood with a rhythm determined by a group of pacemaking cells in the sinoatrial node. These generate a current that causes contraction of the heart, traveling through the atrioventricular node and along the conduction system of the heart. The heart receives blood low in oxygen from the systemic circulation

which enters the right atrium from the superior and inferior venacava and passes to the right ventricle. From here it is pumped into the pulmonary circulation, through the lungs where it receives oxygen and gives off carbon dioxide. Oxygenated blood then returns to the left atrium, passes

through the left ventricle and is pumped out through the aorta to the systemic circulation−where the oxygen is used and metabolized to carbon dioxide. The heart beats at a resting rate close to 72 beats per minute. Exercise temporarily increases the rate, but lowers resting heart rate in the long term, and is good for heart health.

Cardiovascular diseases (CVD) are the most common cause of death globally as of 2008, accounting for 30% of deaths. Of these more than three quarters are a result of coronary artery disease and stroke. Risk factors include: smoking, being overweight, little exercise, high cholesterol, high blood pressure, and poorly controlled diabetes, among others. Cardiovascular diseases frequently do not have symptoms or may cause chest pain or shortness of breath. Diagnosis of heart disease is often done by the taking of a medical history, listening to the heart-sounds with a stethoscope, ECG, and ultrasound. Specialists who focus on diseases of the heart are called cardiologists, although many specialties of medicine may be involved in treatment.

Computer

A computer is device that can be instructed to carry out sequences of arithmetic or logical operations automatically via computer programming. Modern computers have the ability to follow generalized sets of operations, called program. These program enables computers to perform an extremely wide range of tasks.

The Atanasoff – Berry computer (ABC) was the worlds first electronic computer. It was introduced at 1942. It was designed and built by john vincent and i assistant, clifford E. Berry.

ENIAC was the world's first digital computer. It was invented by J. Presper Eckert and John mauchly at the university of Pennsylvania and began constructing in 1943 and was not completed until 1946.It was constructed using about 18,000 vaccum tubes and occupied about 1,800 square feet,and weighting about 50 tons.

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CHARLES BABBAGE

THE father of computer is Charles Babbage. Charles Babbage KH FRS was an english polymath. A mathematician, philosopher, inventor and mechanicla engineer, Babbage originated the concept of a digital programmable computer.

Considered by some to be a “father of the computer”,Babbage is credited with inventing the first mechanical computer that eventually led to more complex electronic designs, though all the essential ideas of modern computers are to be found in Babbage’s analytical engine.

His varied work in other field has led him to be described as “pre-eminent” among the many polymaths of his century.

WE could argue that the abacus or its descendant, the slide rule, invented by william oughtred in 1662. BUT the first computer resembling today's modern machines was the analytical Engine.

Some days before, the us Department of energy and IBM unveiled summit,America's latest super computer,Which is expected to bring the title of the world's most powerful computer back to America from china,Which currently

holds the mantle with its sunway TaihuLight Supercomputer.

A computer is classified into Laptop,palmtop,desktop,main frame computers,mini computers,super computers,etc.....

Laptop

DESKTOP

PALMTOP


20:08
Search
Gmail
Photos
App Bar
Notes
Desktop
Chrome
Docs
Word
Excel
Notes
Skype
Ledison
Ke...ard
2...7
SAT 30
June
Esc
Del
Tab
Enter
Shift
Ctrl
Fn
Alt
Sym
Home
PgUp
PgDn
End