# LITTLE KITE

# MAGAZINE



GO AHEAD WITH THE KITE

#### A.P.J Abdul Kalam

Avul Pakir Jainulabdeen Abdul Kalam 15 October 1931 – 27 July 2015) was an aerospace scientist who served as the 11th President of India from 2002 to 2007. He was born and raised in Rameswaram, Tamil Nadu and studied physics and aerospace engineering. He spent the next four decades as a scientist and science administrator, mainly at the Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO) and was intimately involved in India's civilian space programme and military missile development efforts. He thus came to be known as the Missile Man of India for his work on the development of ballistic missile and launch vehicle technology. He also played a pivotal organisational, technical, and political role in India's Pokhran-II nuclear tests in 1998, the first since the original nuclear test by India in 1974.

Kalam was <u>elected</u> as the 11th President of India in 2002 with the support of both the ruling <u>Bharatiya Janata Party</u> and the then-opposition <u>Indian National Congress</u>. Widely referred to as the "People's President", he returned to his civilian life of education, writing and public service after a single term. He was a recipient of several prestigious awards, including the <u>Bharat Ratna</u>, India's highest civilian honour.

While delivering a lecture at the <u>Indian Institute of Management Shillong</u>, Kalam collapsed and died from an apparent cardiac arrest on 27 July 2015, aged 83. Thousands including national-level dignitaries attended the funeral ceremony held in his hometown of Rameshwaram, where he was buried with <u>full state honours</u>. <sub>by:</sub>



Children, there is not a single country in the whole world where the name of Mahatma

Gandhi is not known. Do you know why Gandhiji became so famous? It was because he dedicated his whole life to the service of the motherland, and service of humanity. Today, I am going to tell you in brief, the story of Mahatma Gandhi, the father of the Nation, or Bapuji, as he is affectionately called. In the early days our country was made up of a large number of small Princely Kingdoms. Porbandar in Gujarat was one such Princely Kingdom. Gandhiji's father Karamchand Gandhi, popularly known as Kaba, was a Minister there. Kaba Gandhi was an honest, upright man, a strict disciplinarian, and very hot tempered. His wife Putlibai was a extremely religious person. She would not have her meal until she had worshipped the sun. Hence sometimes in the rainy season, she would go hungry for two-three days at a stretch. She was a very loving person, and immensely hard-working. To these parents a son was born on October 2nd, 1869. He was their youngest son. He was called Mohandas. He was our Gandhiji. The strict discipline of his father, the religious bent of mind of his mother, all influenced Gandhiji greatly. He was deeply attached to his parents and brothers. The values of truthfulness, honesty, integrity were instilled in him from the very beginning. As a child he was not very brave. He was mortally afraid of the dark, of ghosts and spirits, and also of snakes and scorpions. At night he would cry in fear. The maid who looked after him scolded him very often. "You should be ashamed of yourself" she would say. "What will you do when you grow up?" She then told him that everytime he was frightened he should take the name of God Rama.



# SUBHAS CHANDRA BOSE

Subhas Chandra Bose (23 January 1897 – 18 August 1945) was an <u>Indian nationalist</u> whose defiant patriotism made him a hero in India, but whose attempt during <u>World War II</u> to rid India of <u>British rule</u> with the help of <u>Nazi Germany</u> and <u>Imperial Japan</u> left a troubled legacy. The honorific Netaji (<u>Hindustani</u>: "Respected Leader"), first applied in early 1942 to Bose in Germany by the Indian soldiers of the <u>Indische Legion</u> and by the German and Indian officials in the <u>Special Bureau for India</u> in Berlin, was later used throughout India.

Bose had been a leader of the younger, radical, wing of the <u>Indian National Congress</u> in the late 1920s and 1930s, rising to become Congress President in 1938 and 1939. However, he was ousted from Congress leadership positions in 1939 following differences with <u>Mahatma Gandhi</u> and the Congress high command.He was subsequently placed under house arrest by the British before escaping from India in 1940.

Bose arrived in Germany in April 1941, where the leadership offered unexpected, if sometimes ambivalent, sympathy for the cause of India's independence, contrasting starkly with its attitudes towards other colonised peoples and ethnic communities. In November 1941, with German funds, a Free India Centre was set up in Berlin, and soon a Free India Radio, on which Bose broadcast nightly. A 3,000-strong Free India Legion, comprising Indians captured by **Erwin Rommel**'s **Afrika Korps**, was also formed to aid in a possible future German land invasion of India. By spring 1942, in light of Japanese victories in southeast Asia and changing German priorities, a German invasion of India became untenable, and Bose became keen to move to southeast Asia. Adolf Hitler, during his only meeting with Bose in late May 1942, suggested the same, and offered to arrange for a submarine. During this time Bose also became a father; his wife,or companion, **Emilie Schenkl**, whom he had met in 1934, gave birth to a baby girl in November 1942. Identifying strongly with the Axis powers, and no longer apologetically, Bose boarded a German submarine in February 1943. In Madagascar, he was transferred to a Japanese submarine from which he disembarked in Japanese-held Sumatra in May 1943.

With Japanese support, Bose revamped the **Indian National Army** (INA), then composed of Indian soldiers of the British Indian army who had been captured in the **Battle of Singapore**. To these, after Bose's arrival, were added enlisting Indian civilians in Malaya and Singapore. The Japanese had come to support a number of puppet and provisional governments in the captured regions, such as those in **Burma**, the **Philippines** and **Manchukuo**. Before long the **Provisional** Government of Free India, presided by Bose, was formed in the Japaneseoccupied Andaman and Nicobar Islands. Bose had great drive and charisma creating popular Indian slogans, such as "Jai Hind,"—and the INA under Bose was a model of diversity by region, ethnicity, religion, and even gender. However, Bose was regarded by the Japanese as being militarily unskilled, and his military effort was short-lived. In late 1944 and early 1945, the British Indian Army first halted and then devastatingly reversed the Japanese attack on India. Almost half the Japanese forces and fully half the participating INA contingent were killed. The INA was driven down the Malay Peninsula and surrendered with the recapture of Singapore. Bose had earlier chosen not to surrender with his forces or with the Japanese, but rather to escape to Manchuria with a view to seeking a future in the Soviet Union which he believed to be turning anti-British. He died from third-degree burns received when his plane crashed in Taiwan. Some Indians, however, did not believe that the crash had occurred, with many among them, especially in Bengal, believing that Bose would return to gain India's independence.

The <u>Indian National Congress</u>, the main instrument of Indian nationalism, praised Bose's patriotism but distanced itself from his tactics and ideology, especially his collaboration with fascism. The <u>British Raj</u>, though never seriously threatened by the INA, charged 300 INA officers with treason in the <u>INA trials</u>, but eventually backtracked in the face both of popular sentiment and of its own end.

## RASPBERRY PI

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ALSO AVAILABLE IN IT.BUT THIS COMPUTER CONSUMES ONLY

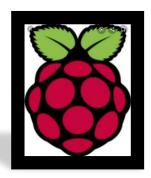
VERY LOW ELECTRICITY.THIS COMPUTER IS DESINED MAINLY

FOR EDUCATIONAL PURPOSES. BUT VARIOUS COMPUTER

PROGRAMS CAN BE PREPARED WITH THE HELP OF THIS

COMPUTER. USING THESE KIND OF PROGRAMS, THIS COMPUTER

HAS FACILITIES TO CONTROL EXTERNAL EQUIPMENT ALSO





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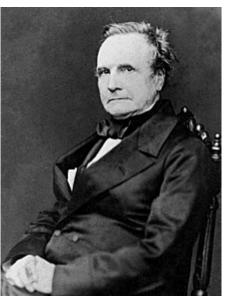
by:Aniruddha IX D

#### **Charles Babbage**

Charles Babbage 26 December 1791–18 October 1871) was an English <u>polymath</u>. A mathematician, philosopher, inventor and mechanical 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 fields has led him to be described as "pre-eminent" among the many polymaths of his century

Parts of Babbage's incomplete mechanisms are on display in the <u>Science Museum</u> in London. In 1991, a functioning <u>difference engine</u> was constructed from Babbage's original plans. Built to <u>tolerances</u> achievable in the 19th century, the success of the finished engine indicated that Babbage's machine would have worked.



A computer is a machine 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 *programs*. These programs enable computers to perform an extremely wide range of tasks. A "complete" computer including the hardware, the operating system (main software), and peripheral equipment required and used for "full" operation can be referred to as a computer system. This term may as well be used for a group of computers that are connected and work together, in particular a computer network or computer cluster.

Computers are used as control systems for a wide variety of industrial and consumer devices. This includes simple special purpose devices like microwave ovens and remote controls, factory devices such as industrial robots and computer-aided design, and also general purpose devices like personal computers and mobile devices such as smartphones. The Internet is run on computers and it connects hundreds of millions of other computers and their users.

Early computers were only conceived as calculating devices. Since ancient times, simple manual devices like the abacus aided people in doing calculations. Early in the Industrial Revolution, some mechanical devices were built to automate long tedious tasks, such as guiding patterns for looms. More sophisticated electrical machines did specialized analog calculations in the early 20th century. The first digital electronic calculating machines were developed during World War II. The first semiconductor transistors in the late 1940s were followed by the silicon-based MOSFET (MOS transistor) and monolithic integrated circuit (IC) chip technologies in the late 1950s, leading to the microprocessor and the microcomputer revolution in the 1970s. The speed, power and versatility of computers have been increasing dramatically ever since then, with MOS transistor counts increasing at a rapid pace (as predicted by Moore's law), leading to the Digital Revolution during the late 20th to early 21st centuries

ಧಾನ್ಗದ ಕಾಳುಗಳು ಮುಂಜಾವಿನ ಹೊತ್ತಿನಲಿ ಹಾರಿತು ತಾಯಿ ಹಕ್ಕಿ ದೂರದೂರಿಗೆ ಕಾಳನು ಅರಸಿ ಕಾಯುತಿತ್ತು ಒಂದು ಮರಿ

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> By Yashaswini. K 9<sup>th</sup> D

## Folk literature and art

Literature is divided into traditional elite literature and Folk literature. Literature is an expression of man-expression of his emotions, feeling and philosophy in relation to the various happenings in life. Folk literature is a form of literature created by the rural folk. Who are naive and innocents. This form of literature and art depict simple village life, their beliefs, pains, customs and manners, festivals and other social occasions, wars fought by the chieftains and simple every-day events such as grinding ragi, rice and others.

Most part of this kind of literature is not written. It traverses by word of mouth. It is the people's voice, the very root of their culture. It is said that all other forms of literature have their origin in folk literature. Folk literature includes prose, poetry, drama, proverbs, riddles and many other forms.

## <u>INDIA</u>

India is a country which is popular to its Culture. It is also famous for its traditions. 'New Delhi' is the capital of India.

India is containing 28 States and 7 Union Territories. President of our country is Honourable Shri. Ramnath Kovind. And our Vice President is Shri. Venkaih Naidu. And our Honourable Prime Minister is Shri, Narendra Modi. We have 'Cultures and Traditions' in regarding caste and gender. India have its own National animal, bird, tree, and has its own National Flag. India's flag is tricoloured containing 'Orange, White, Green'. It has a Chakra in middle named "Ashoka Chakra".India is Seventh largest country in world and we live in 'Indian Sub-Continent'. India got freedom on 15 August 1947.India suffered for its freedom from 1857.Because of great people like Mahatma Gandhi, Netaji Subhas Chandra Bos, Jawaharlal Nehru and by more great peoples. The sacrifice of that peoples for country made India independent. Now India is a country which is developing fastly. This is the great speciality of India by which it is famous all over the world.

#### THANK YOU

Written by, Srinivasa.k 9<sup>th</sup> D

### **USES OF INTERNET**

Internet has changed the life of man for good. Be it at home or in the office internet is used everywhere for several reasons. Some of users of internet include communication, shopping, booking, researching and studying.

Internet is one thing that we cannot imagine our lives without. It is used in every sphere of life. It has brought the world. Today, communicating with friends and relatives living in foreign lands is no longer a costly affair. You can connect with them at just the click of a button internet offers various means of communication including e-mail, social media platforms, web calls and messengers. You can chat or call with your near and dear ones at any time of the day with the help of internet. Internet is also a great source of entertainment. In today's time when everyone is busy with their own lives internet can prove to be your best friend.

Finally, internet has eased our lives in numerous ways, It has helped us to connect with our near and dear ones and also made our life extremely comfortable.

#### **Mani Madhava Chakyar**

Chakyar Koothu was originally performed only in Koothambalams

of Hindu temples. It was Natyacharya- meaning a great teacher and practitioner of natyam (dramaturgy), a title accorded in his honour- Padma Shri Mani Madhava Chakyar, a virtuoso of this art, who took Koothu and Kudiyattam outside the temples to the common people. He was the first to perform Chakyar Koothu for All India Radio and Doordarshan. Many consider him to be the greatest Chakyar Koothu and Kutiyattam artist of modern times. The story goes that his guru, Rama Varma Parikshith Thampuran wrote a Sanskrit champu prabandha called Prahladacharita and requested some senior artists to study and perform it, but they found it impossible to do. It was then young Mani Madhava Chakyar's turn to try. He agreed and studied a part of the prabandha overnight and performed it the next day at Tripunithura, then the capital of the Kingdom of

The incident proved his mastery of both Sanskrit and the classical art forms. After some months, he performed the entire Prahladacharita on the same stage.

The late Ammannur Madhava Chakyar and Painkulam Raman Chakyar were another important 20th century figure in this art form.

Cochin.

#### **MAN MADE HAZARDS**

Human is a social being. At present man has become selfish and being trying to destroy nature for money. For supremacy.

Destroying or harming nature for his own selfish need is a very common thing now a days.

In our day to day life we are also destroying nature or disturbing it. Man made hazards does not mean destroying nature, disturbing other living beings violating the rights are also termed as man made hazards. The current affairs or the incidents happened are all man made hazards. Last year our state Kerala faced tragic flood. Many people lost their houses, their friends, their family and everything. This is because of man itself.

Amazon rain forests are getting destroyed now a days. 20% of OXYGEN is produced there. But now this number has reduced.

Desire of man to be supreme leads to war. War leads to economic crisis. Many people will lose their family, wealth etc.

by:Sharanya.T.S IX D



Mohanlal Viswanathan Nair (born 21 May 1960), better known as Mohanlal, is a veteran Indian actor, producer and singer best

known for his work in <u>Malayalam cinema</u>. Mohanlal made his acting debut in <u>Thiranottam</u> (1978), however, <u>Manjil Virinja Pookkal</u> (1980) released earlier at the box office. In 1991, Mohanlal produced and starred in <u>Bharatham</u> which is interpreted as a modern-day adaptation of the <u>Ramayana</u> from <u>Bharath</u>'s perspective. The film was a critical and commercial success, and got Mohanlal the <u>National Film Award for Best Actor</u> for that year.[ His role in Bharatham was listed among the 25 best acting performances of <u>Indian cinema</u> by <u>Forbes India</u> on the occasion of celebrating 100 years of Indian Cinema.

In 1999, he produced and acted in <u>Vanaprastham</u>, which won him his second <u>National Film Award for Best Actor</u>. It was nominated for the Grand Jury Prize at the <u>AFI</u> Los Angeles International Film Festival (AFI Fest), and was screened in the <u>Un Certain Regard</u> section at the <u>1999 Cannes Film Festival</u>. Vanaprastham was screened in retrospective, during the 2014 <u>International Film Festival of India</u> in the Celebrating Dance in Indian cinema section. In a career spanning over three decades, Mohanlal has acted in over three hundred and twenty Malayalam films in various genres. Mohanlal is also known for his works in <u>Hindi, Tamil, Telugu</u> and <u>Kannada</u>, which include internationally well received films such as <u>Iruvar</u> (1997) by <u>Mani Ratnam</u> and <u>Company</u> (2002) by <u>Ram Gopal Varma</u>.

Mohanlal has won five <u>Indian National Film Awards</u>, along with six <u>Kerala State Film Awards</u> <u>for Best Actor</u> and eight <u>Filmfare Awards for Best Actor</u>. In 2019, the Government of India honoured him with the <u>Padma Bhushan</u>, India's third highest civilian honour, for his contributions towards Indian cinema.In 2009, he became the first and the only actor to receive the honorary rank of <u>Lieutenant Colonel</u> in the <u>Territorial Army of India</u> and in 2010 he received an <u>honorary doctorate</u> from <u>Sree Sankaracharya University of Sanskrit</u>, Kerala.

by:Yashas.K

### Multinational companies

Multinational companies are those companies registered in the home country but operating in many countries. These companies with high technology and huge capital viewed neo liberalisation as an opportunity. Instead of a producing goods in a country and exporting it to other countries, the multinational companies have invested their capital in developing countries so that the raw materials, labour, and markets available there can be used in their favour.

It can be seen that the turnover of some multinational companies are more than the national companies of certain small developing countries. The multinational companies are also able to make changes favourable to them in the domestic policies and laws of a country.

by:Shri Vishnu.P.S

#### **NATURE**

Nature in the broadest sense is the natural, physical, or material world or universe.

"Nature" can refer to the phenomena of the physical world, and also to life in general. The study of nature is a large, if not the only, part of science. Although humans are part of nature, human activity is often understood as a separate category from other natural phenomena. All living beings live in the nature .Nature gives fresh air, water, food etc...... Within the various uses of word today, nature often refer to geology and wildlife. "CARE FOR EARTH, CARE FOR THE COMING BIRTH" before the nature is full of greenery but now it is full of buildings man is destroying the nature for their purpose "SAVE NATURE SAVE LIFE"

By:Greeshma.P

## **PLANETS**

There are 8 planets in our solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune. Jupiter is a largest planet and Mercury is a hottest planet. Venus is called morning and evening star. Earth is a only planet where human exist. Mars is called red planet. Saturn is the second largest planet. Jupiter has more number of satellite. Moon is the natural satellite of the Earth. Mercury and Venus doesn't have any satellite. We can see planets through telescope. Earth requires 365 days to complete one revolution. It takes 24 hours to complete one rotation. Earth rotates east wards. The solar system such a wonderful creation of God.

by:

The burning of coal and wood, and the presence of many horses in concentrated areas made the cities the primary sources of pollution. The Industrial Revolution brought an infusion of untreated chemicals and wastes into local streams that served as the water supply. King Edward I of England banned the burning of sea-coal by proclamation in London in 1272, after its smoke became a problem; the fuel was so common in England that this earliest of names for it was acquired because it could be carted away from some shores by the wheelbarrow.

It was the Industrial Revolution that gave birth to environmental pollution as we know it today. London also recorded one of the earlier extreme cases of water quality problems with the Great Stink on the Thames of 1858, which led to construction of the London sewerage system soon afterward. Pollution issues escalated as population growth far exceeded viability of neighborhoods to handle their waste problem. Reformers began to demand sewer systems and clean water. [8]

In 1870, the sanitary conditions in Berlin were among the worst in Europe. August Bebel recalled conditions before a modern sewer system was built in the late 1870s:

"Waste-water from the houses collected in the gutters running alongside the curbs and emitted a truly fearsome smell. There were no public toilets in the streets or squares. Visitors, especially women, often became desperate when nature called. In the public buildings the sanitary facilities were unbelievably primitive....As a metropolis, Berlin did not emerge from a state of barbarism into civilization until after 1870." [9]

The primitive conditions were intolerable for a world national capital, and the Imperial German government brought in its

#### **Quotes of Buddha**

- 1. However many holy words you read, however many words you speak, what good will they do you if you do not act upon them?
- 2. Whatever words we utter should be choosen with care, for people will hear them and be influenced by them for good or ill.
- 3. Peace comes from within. Do not seek it without.
- 4. Three things cannot be long hidden: the sun, the moon, and the truth.
- 5. No one saves usbut ourselves. No one can and no one may. We oyrselves must walk the path.
- 6. Do not dwell in the past; do not dream of the future; concentrate the mind on the present moment.
- 7. Health is the greatest gift, contentment the greatest wealth, faithfulness the best relationship.
- 8. Just as treasures are uncovered from the earth, so also virtue appears from good deeds and wisdom appears from a pure and peaceful mind. To walk safely through the maze of human life, one needs the light pf wisdomand the guidness of virtue.
- 9. You will not be punished for your anger; you will be punished by your anger.
- 10. Better than a thousand hollow words is one word that brings peace.
- 11. To keep the body in good health is a duty; otherwise we shall not be able to keep our mind strong and clear.

#### **ARISTOTLE**

Aristotle pronounced 384–322 BC)was a Greek philosopher and polymath during the Classical period in Ancient Greece. He was the founder of the Lyceum and the Peripatetic school of philosophy and Aristotelian tradition. Along with his teacher Plato, he has been called the "Father of Western Philosophy". His writings cover many subjects – including physics, biology, zoology, metaphysics, logic, ethics, aesthetics, poetry, theatre, music, rhetoric, psychology, linguistics, economics, politics and government. Aristotle provided a complex synthesis of the various philosophies existing prior to him, and it was above all from his teachings that the West inherited its intellectual lexicon, as well as problems and methods of inquiry. As a result, his philosophy has exerted a unique influence on almost every form of knowledge in the West and it continues to be a subject of contemporary philosophical discussion.

Little is known about his life. Aristotle was born in the city of <u>Stagira</u> in <u>Northern Greece</u>. His father, <u>Nicomachus</u>, died when Aristotle was a child, and he was brought up by a guardian. At seventeen or eighteen years of age, he joined <u>Plato's Academy</u> in <u>Athens</u> and remained there until the age of thirty-seven (<u>c.</u> 347 BC). Shortly after Plato died, Aristotle left Athens and, at the request of <u>Philip II of Macedon</u>, tutored <u>Alexander the Great</u> beginning in 343 BC. He established a library in the Lyceum which helped him to produce many of his hundreds of books on <u>papyrus scrolls</u>. Though Aristotle wrote many elegant treatises and dialogues for publication, only around a third of his original output has survived, none of it intended for publication.

Aristotle's views on <u>physical science</u> profoundly shaped medieval scholarship. Their influence extended from <u>Late Antiquity</u> and the <u>Early Middle Ages</u> into the <u>Renaissance</u>, and were not replaced systematically until <u>the Enlightenment</u> and theories such as <u>classical mechanics</u>. Some of Aristotle's zoological observations found in <u>his biology</u>, such as on the <u>hectocotyl (reproductive) arm</u> of the <u>octopus</u>, were disbelieved until the 19th century. His works contain the earliest known formal study of logic, studied by medieval scholars such as <u>Peter Abelard</u> and <u>John Buridan</u>. Aristotle's influence on logic also continued well into the 19th century.

He influenced <u>Islamic thought</u> during the <u>Middle Ages</u>, as well as <u>Christian</u> theology, especially the <u>Neoplatonism</u> of the <u>Early Church</u> and the <u>scholastic</u> tradition of the <u>Catholic Church</u>. Aristotle was revered among medieval Muslim

scholars as "The First Teacher" and among medieval Christians like <u>Thomas Aquinas</u> as simply "The Philosopher". His ethics, though always influential, gained renewed interest with the modern advent of <u>virtue ethics</u>, such as in the thinking of <u>Alasdair MacIntyre</u> and <u>Philippa Foot</u>.

### Black hole

A black hole is a region of <u>spacetime</u> exhibiting <u>gravitational</u> acceleration so strong that nothing—no <u>particles</u> or even <u>electromagnetic radiation</u> such as <u>light</u>—can escape from it.[6] The theory of <u>general relativity</u> predicts that a sufficiently compact <u>mass</u> can deform <u>spacetime</u> to form a black hole.[7][8] The boundary of the region from which no escape is possible is called the <u>event horizon</u>. Although the event horizon has an enormous effect on the fate and circumstances of an object crossing it, no locally detectable features appear to be observed.[9] In many ways, a black hole acts like an ideal <u>black body</u>, as it reflects no light.[no10][11] Moreover, <u>quantum field theory in curved spacetime</u> predicts that event horizons emit <u>Hawking radiation</u>, with <u>the same spectrum</u> as a <u>black body</u> of a temperature inversely proportional to its mass. This temperature is on the order of billionths of a <u>kelvin</u> for <u>black holes of stellar mass</u>, making it essentially impossible to observe.

Objects whose gravitational fields are too strong for light to escape were first considered in the 18th century by John Michell and Pierre-Simon Laplace.[12] The first modern solution of general relativity that would characterize 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 Finkelstein in 1958. Black holes were long considered a mathematical curiosity; it was during the 1960s that theoretical work showed they were a generic prediction of general relativity. The discovery of neutron stars by Jocelyn Bell Burnell in 1967 sparked interest in gravitationally collapsed compact objects as a possible astrophysical reality.

Black holes of stellar mass are expected to form when very massive stars collapse at the end of their life cycle. After a black hole has formed, it can continue to grow by absorbing mass from its surroundings. By absorbing other stars and merging with other black holes, supermassive black holes of millions of solar masses ( $\underline{M}_{\odot}$ ) may form.

There is consensus that supermassive black holes exist in the centers of most galaxies.

The presence of a black hole can be inferred through its interaction with other <u>matter</u> and with <u>electromagnetic radiation</u> such as visible light. Matter that falls onto a black hole can form an external <u>accretion disk</u> heated by friction, forming some of the <u>brightest objects in the universe</u>. If there are other stars orbiting a black hole, their orbits can be used to determine the black hole's mass and location. Such observations can be used to exclude possible alternatives such as neutron stars. In this way, astronomers have identified numerous stellar black hole candidates in <u>binary systems</u>,

and established that the radio source known as <u>Sagittarius A\*</u>, at the core of the <u>Milky Way</u> galaxy, contains a supermassive black hole of about 4.3 million <u>solar masses</u>.

On 11 February 2016, the <u>LIGO</u> collaboration <u>announced the first direct detection</u> of <u>gravitational waves</u>, which also represented the first observation of a black hole merger.[13] As of December 2018, eleven <u>gravitational wave events</u> have been observed that originated from ten merging black holes (along with one binary <u>neutron star merger</u>).[14][15] On 10 April 2019, the first ever direct image of a black hole and its vicinity was published, following observations made by the <u>Event Horizon Telescope</u> in 2017 of the <u>supermassive</u> black hole in <u>Messier 87</u>'s <u>ggalactic centre</u>.[3][16][17

#### A.P.J ABDUL KALAM

Avul Pakir Jainulabdeen Abdul Kalam; 15 October 1931 – 27 July 2015) was an aerospace scientist who served as the 11th President of India from 2002 to 2007. He was born and raised in Rameswaram, Tamil Nadu and studied physics and aerospace engineering. He spent the next four decades as a scientist and science administrator, mainly at the Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO) and was intimately involved in India's civilian space programme and military missile development efforts.[1] He thus came to be known as the Missile Man of India for his work on the development of ballistic missile and launch vehicle technology.[2][3][4] He also played a pivotal organisational, technical, and political role in India's Pokhran-II nuclear tests in 1998, the first since the original nuclear test by India in 1974.[5]

Kalam was <u>elected</u> as the 11th President of India in 2002 with the support of both the ruling <u>Bharatiya Janata Party</u> and the then-opposition <u>Indian National Congress</u>. Widely referred to as the "People's President",[6] he returned to his civilian life of education, writing and public service after a single term. He was a recipient of several prestigious awards, including the <u>Bharat Ratna</u>, India's highest civilian honour.

While delivering a lecture at the <u>Indian Institute of</u>
<u>Management Shillong</u>, Kalam collapsed and died from an apparent cardiac arrest on 27 July 2015, aged 83.[7]
Thousands including national-level dignitaries attended the funeral ceremony held in his hometown of Rameshwaram, where he was buried with full state honours.

#### Swami Vivekananda

Swami Vivekananda 12 January 1863 – 4 July 1902), born Narendranath Datta was an Indian Hindu monk, a chief disciple of the 19th-century Indian mystic Ramakrishna. He was a key figure in the introduction of the Indian philosophies of Vedanta and Yoga to the Western world and is credited with raising interfaith awareness, bringing Hinduism to the status of a major world religion during the late 19th century. He was a major force in the revival of Hinduism in India, and contributed to the concept of nationalism in colonial India. Vivekananda founded the Ramakrishna Math and the Ramakrishna Mission. He is perhaps best known for his speech which began with the words - "Sisters and brothers of Americain which he introduced Hinduism at the Parliament of the World's Religions in Chicago in 1893.

Born into an aristocratic <u>Bengali Kayastha</u> family of <u>Calcutta</u>, Vivekananda was inclined towards spirituality. He was influenced by his <u>guru</u>, Ramakrishna, from whom he learnt that all living beings were an embodiment of the divine self; therefore, service to God could be rendered by service to humankind. After Ramakrishna's death, Vivekananda toured the <u>Indian subcontinent</u> extensively and acquired first-hand knowledge of the conditions prevailing in <u>British India</u>. He later travelled to the United States, representing India at the 1893 Parliament of the World's Religions. Vivekananda conducted hundreds of public and private lectures and classes, disseminating tenets of <u>Hindu philosophy</u> in the United States, England and Europe. In India, Vivekananda is regarded as a <u>patriotic saint</u>, and his birthday is celebrated as <u>National Youth Day</u>.

By:Keertesh.B



# Thanos

The Article is about the 'Marvel Comics' Super villains'.

Thanos is a fictional Supervillain appearing in American comic books published by Marvel comics. The character was created by writerartist Jim starlin, & made his first appearance in 'The Invincible Iron Man' (An fictional movie of Avengers) Thanos is one of the most powerful villains in the 'Marvel Universe & has clashed with many heroes including the Avengers, The Guardians of the Galaxy, The Fantastic Four, & The X-Men.

The character appeared in the 'Marvel Cinematic universe, portrayed by Damion Poitier in 'The Avengers' (2012) & by Josh Brolin in Guardians of the Galaxy (2014), Avengers: End Game (2019) through voice& motion capture in various comic, including animated television series & video games.

# <u>USB</u>

# (Universal serial Bus)

USB is an advanced technology that helps in the speedy transfer of information between equipment. Apart from ordinary USB connectors, micro USB connectors to be used in mobile phones and cameras are also available now. They are used for supplying electricity to those instruments that require a minimum electricity. You might have seen mobile phone chargers, fans, lights, etc...working using USB. The new generation equipment use the USB 3.0 technology which has high speed data transfer.

By:Hari Krishna.R



# BHAGAT SINGH

Bhagat Singh: (Punjabi pronunciation 23 March 1931) was an Indian socialist revolutionary whose two acts of dramatic violence against the British in India and execution at age 23 made him a folk hero of the Indian independence movement.

In December 1928, Bhagat Singh and an associate, Shivaram Rajguru, fatally shot a 21-year-old British police officer, John Saunders, in Lahore, British India, mistaking Saunders, who was still on probation, for the British police superintendent, James Scott, whom they had intended to assassinate. They believed Scott was responsible for the death of popular Indian nationalist leader Lala Lajpat Rai, by having ordered a lathicharge in which Rai was injured, and, two weeks after which, died of a heart attack. Saunders was felled by a single shot from Rajguru, a marksman. He was then shot several times by Singh, the postmortem report showing eight bullet wounds. Another associate of Singh, Chandra Shekhar Azad, shot dead an Indian police constable, Chanan Singh, who attempted to pursue Singh and Rajguru as they fled.

After escaping, Singh and his associates, using pseudonyms, publicly owned to avenging Lajpat Rai's death, putting up prepared posters, which, however, they had altered to show Saunders as their intended target. Singh was thereafter on the run for many months, and no convictions resulted at the time.

Surfacing again in April 1929, he and another associate, Batukeshwar Dutt, exploded two improvised bombs inside the Central Legislative Assembly in Delhi. They showered leaflets from the gallery on the legislators below, shouted slogans, and then allowed the authorities to arrest them. The arrest, and the resulting publicity, had the effect of bringing to light Singh's complicity in the John Saunders case. Awaiting trial, Singh gained much public sympathy after he joined fellow defendant in a demanding better prison conditions for Indian prisoners, and ending in Das's death from starvation in September 1929. Singh was convicted and hanged in March 1931, aged 23.

Bhagat Singh became a popular folk hero after his death.

Jawaharlal nehru wrote about him, "Bhagat Singh did not become popular because of his act of terrorism but because he seemed to vindicate, for the moment, the honour of Lala Lajpat Rai, and through him of the nation. He became a symbol; the act was forgotten, the symbol remained, and within a few months each town and village of the Punjab, and to a lesser extent in the rest of northern India, resounded with his name." In still later years, Singh, an atheist and socialist in life, won admirers in India from among a political spectrum that included both Communists and right-wing Hindu nationalists. Although many of Singh's associates, as well as many Indian anti-colonial revolutionaries, were also involved in daring acts, and were either executed or died violent deaths, few came to be lionized in popular art and literature to the same extent as Singh.

# Thank You



MSCHSS, Peradala, Nirchal