അറിവിന്റെ ചിപ്പികൾ

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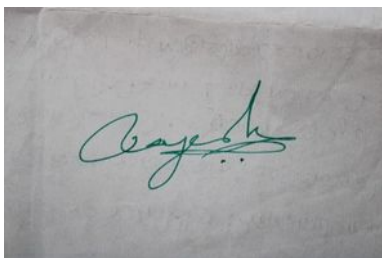
SMITHA.P

MESSAGE FROM SUPERINTENDENT

    1961 മുതൽ സാങ്കേതിക വിദ്യാഭ്യാസ വകുപ്പിന്റെകീഴിൽ നല്ല രീതിയിൽ പ്രവർത്തിച്ചുന്റെകാണ്ടിരിക്കുന്ന ഒരു സ്ഥാപനമാണ് ഗവൺന്റെമന്റ്)ക്ലിക്കൽ ഹൈ-സ്കൂൾ ്‌ (്‌കേകാഴിക്കേക്കുന്റൊതാഴിലധിഷ്ഠിത വിദ്യാഭ്യാസത്തിന്സ്പ്രാധാന്യം ന്റെകാട്ടുത്തുന്റെകാണ്ടുള്ള പാഠ്യപദ്ധതിയാണ് ഇവിന്റെ) ന)പ്പാക്കി വരുന്നത്

    ന്റെപാഠ വിദ്യാഭ്യാസ സംരക്ഷണത്തിന്റെ ഭാഗമായി ഈ വിദ്യാലയവും പൂർണമായി ഹൈ-ന്റെ)ക്കായി മാറിയിരിക്കുകയാണ്

    കഴിഞ്ഞ വർഷം ഇ)ങ്ങിയ ലിറ്റിൽ ഹൈകറ്റ്സ് ക്ലബ് ഈ വർഷവവും നല്ലകേപാന്റെല പ്രവർത്തിച്ചവരുന്നുണ്ട്

    അതിന്റെമകങ്കേ)ാദാ-രണമാണ്ഈ മാഗസിൻ ലിറ്റിൽ ഹൈകറ്റ്സിൽ നിന്നും ലഭിച്ച സാങ്കേ തിക അറിവുകൾ കുട്ടികൾക്ക് വളന്റെരയധികം പ്രങ്കേയാജനന്റെപ്പടുന്നുണ്ട്

    ഈ മാഗസിന്റെ നിർമാണത്തിനായി പ്രവർത്തിച്ച എല്ലാവർക്കും ആശംസനൽകുന്നകേതാങ്കേ)ാപ്പം ഇ)ർ വർഷങ്ങളിലും ഹൈകല്ലുവത്തുനം ഈ സ്ഥാപനത്തിന്ന് മുതൽക്കുട്ടാകുന്റെമന്ന് പ്രതീക്ഷിക്കുന്ന

എന്ന്

രങ്കേജഷ്ന്റ്കന്റ്ക

ENGG.INSTRUCTOR

'വിദ്യാധനം സർവ്വധനാൽ പ്രധാനം' എന്ന് ചൊല്ല് അറിവിന്റെ പരമോന്നതശക്തിയെ വിളിച്ചോതുന്നു.ഏതൊരു വ്യക്തിയുടെയും ജീവിതത്തിന്റെ സുഖ:ദുഖങ്ങളിൽ പങ്കുചേരുന്ന മഹാശിലയാണ് അറിവ്. വിജ്ഞാനം ഒരുവ്യക്തിയെ അവന്റെ ദുഖ:ങ്ങളെ തരണം ചെയ്യാൻ സഹായിക്കുന്നു.

ലിറ്റിൽ കൈറ്റ്സ് ഇന്നത്തെ വിജ്ഞാനത്തിന്റെ പുരോഗതിയുടെ ഉത്തമ ഉദാഹരണമാണ്.പാഠ്യോത്തര വിശയങ്ങൾകപ്പുറം സകേതികവിജ്ഞാനത്തിലൂടെ വിദ്യാർത്ഥികളുടെ അറിവ് വർദ്ധിപ്പിക്കാൻ ഉതകുന്നതാണ് ഇത്തരം സംഭ്രമങ്ങൾ. 2018 ജൂൺ 22 ന് പ്രവർത്തനം ആരംഭിച്ച കൈറ്റ്സ് വിവര സാങ്കേതികരംഗത്ത് വിദ്യാർത്ഥികൾപ്രകടിപ്പിക്കുന്ന താൽപര്യങ്ങളെ പരിപോഷിപ്പിക്കുന്നതോടൊപ്പം സങ്കേതികവിദ്യയിലും സോഫ്റ്റ് വെയറുകളുടെ കൈകാര്യങ്ങളിലും പാലിക്കപ്പെടേണ്ട മൂല്യങ്ങളും,സംസ്കാരവും സൃഷ്ടിക്കപ്പെട്ടുകയും വിവരവിന്നിമയ വിദ്യസങ്കേതങ്ങൾ അതിഗഹനമായി സ്വായത്തമാക്കുന്നതിനു വേണ്ട അവസരമൊരുക്കുന്നു

എന്ന്

നിസാർ

ABOUT SCHOOL

Technical high school kozhikode in 1961, sankara started functioning under the department of education. The institute was under the aegis of the poly technic principal until 1982. The office was then shifted to the present building, under the direct supervision of a superintendent. The program focusses on vocational education.

   Grade7students will be selected based on the state level competitive Examination marks.TheThechnical high school curriculum covers all subject,expect biology and hindi,in the school of the general education department. Based on the performance of the BAM annual examination,the student will be given expert training in the year of the year in accordance with the wishes of the students. T. H. The Misty Look Theme. The following are the tonnes of the land sanctioned in calicut.

1)Fitting

2) Welding

3)Turning

4)Electrical

5)R&AC

6)MTT

In addition to this, from the academic year 2013 – 14 onward. Ship F.(National Skills Qualification Work) Provides practical

training in Level 1 and Level 2 and class 10. These are the NSQF standard trades available in Kozhikode

1) Electrical equipment & maintenance

2)Product & manufacturing

3)air condition

4) Auto-mobile

5) Refrigeration & maintenance

English has been made the medium of instruction for those who have been enrolled since in academic Year 2013-14. The Enrich Your English course is also included in grades 8 and 9 to improve children's English language skills.

The THSLC Certificate is equivalent to the SSLC Certificate. And I.T.I THSLC past and present to basic or substantive post. The Misty-look Theme C. Will be considered

by,Farhan Ahammed p.t

GENETIC ENGINEERING & GENETICALLY MODIFIED ORGANISM

paul berg

Genetic engineering, also called genetic modification or genetic manipulation, is the direct manipulation of an organism's genes using biotechnology. It is a set of technologies used to change the genetic make up of cells, including the transfer of genes within and across species boundaries to produce improved or novel organisms.New DNA is obtained by either isolating and copying the genetic material of interest using recombinant DNA methods or by artificially synthesising the DNA. A construct is usually created and used to insert this DNA into the host organism. The first recombinant DNA molecule was made by P**aul berg** in 1972 by combining DNA from the monkey virus SV40 with the lambda virus. As well as inserting genes, the process can be used to remove,or "knock out",genes. The new DNA can be inserted randomly, or targeted to a specific part of the genome.

➢ **genetically modified mammals**

The process of genetically engineering mammals is slow, tedious, and expensive. However, new technologies are making genetic modifications easier and more precise. The first transgenic mammals were produced by injecting viral DNA into embryos and then implanting the embryos in females. The embryo would develop and it would be incorporated into the reproductive cells. Then researchers would have to wait until the animal reached breeding age and then offspring would be screened for presence of the gene in every cell. The development of the CRISPR-Cas9 gene editing system ass a cheap and fast way of directly modifying germ cells, effectively halving the amount of time needed to develop genetically modified mammals.

➢ **GENETICALLY MODIFIED ORGANISM (GMO)**

**Herbert boyer**

Stanley Cohen

The first Genetically Modified Organism (GMO) was a bacterium generated by Herbert boyer and Stanley Cohen
in 1973. Rudolf jaenisch created the first GM animals when he inserted foreign DNA into a mouse in 1974.

Genetically Modified mouse

The first company to focus on genetic engineering, Genentech, was founded in 1976 and started the production of human proteins. Genetically engineered human insulin was produced in 1978 and insulin-producing bacteria were commercialised in 1982. Genetically modified food has been sold since 1994, with the release of the Flavr savr tomato. The Flavr savr was engineered to have a longer shelf life, but most current GM crops are modified to increase resistance to insects and herbicides. Glofish, the first GMO designed as a pet, was sold in the United States in december 2003. In 2016 salmon modified with a growth hormone were sold.

Genetic engineering has been applied in numerous fields including research, medicine, industrial biotechnology and agriculture. In research GMOs are used to study gene function and expression through loss of function, gain of function, tracking and expression experiments. By knocking out genes responsible for certain conditions it is possible to create animal model organisms of human diseases. As well as producing hormones, vaccines and other drugs genetic engineering has the potential to cure genetic diseases through gene therapy. The same techniques that are used to produce drugs can also have industrial applications such as producing enzymes for laundry detergent, cheeses and other products.
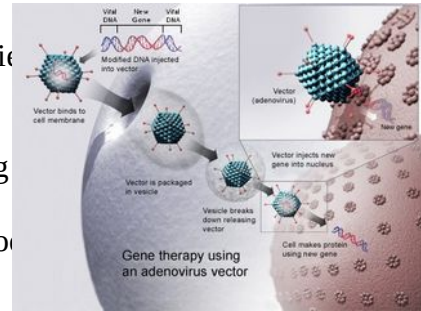
The rise of commercialised genetically modified crops has provided economic benefits to farmers in many different countries, but has also been the source of most of the controversy surrounding the technology. This has been present since its early use; the first field trials were destroyed by anti-GM activists. Although there is a scientific consensus that currently available food derived from GM crops poses no greater risk to human health the conventional food, GM food safety is a leading concern with critics. Gene flow, impact on non-target organisms, control of the food supply and intellectual property rights have also been raised as potential issues. These concerns have led to the development of a regulatory framework, which started in 1975. It has led to an international treaty,the Cartagena Protocol on bio safety, that was adopted in 2000. Individual countries have developed their own regulatory systems regarding GMOs, with the most marked differences occurring between the US and Europe.

➢ GENETICALLY MODIFIED CROPS

There are currently only eight genetically modified crops available in the United States and Canada. Three more have been approved but are not yet available in the markets

➢ GENETICALLY ENGINEERED FOODS

Genetically engineered (GE) foods have had their DNA changed using genes from other plants or animals.Scientists take the gene for a desired trait in one plant or animals, and they insert that gene into a cell of another plant or animal.

Function-

Genetic engineering can be done with plants,animals, or bacteria and other very small organisms. Genetic engineering allows scientists to move desired genes from one plant or animals into another. Genes can also be moved from an animals to a plant or vice versa. Another name for this is genetically modified organisms , or GMOs. The process to create GE foods is different than selective breeding. This involves selecting plants or animals with desired traits and breeding them. Over time, this results in offspring with those desired traits. One of the probelms with selective breeding is that it can also result in traits that are not desired. Genetic engineering allows scientists to select one specific gene to implant. This avoids introducing other genes with undesirable traits. Genetic engineering also helps speed up the process of creating new foods with desired traits.

The possible benefits of genetic engineering include :

- More nutritious food
- Tastier food
- Disease- and drought-resistant plants that require fewer environmental resources (such as water and fertilizer)
- Less use of pesticides
- Increased supply of food with reduced cost and longer shelf life
- Faster growing plants and animals
- Food with more desirable traits, such as potatoes that produce less of a cancer-causing substance
  when fried
- Medicinal foods that could be used as vaccines or other medicines

Advantages of GMOs

1) It allows for more profits.
2) It introduces the knowledge of genetic alterations.
3) It is economically efficient.
4) It decrease food prices.
5) It adds more nutritional value to crops.
6) Its products are found to be safe.

Disadvantages of GMOs

1) It can be dangerous to other insects that are important to our ecosystem.
2) It sparks concerns on changing the field of agriculture.
3) It can damage the environment.
4) It causes unwanted residual effects.
5) It can create more weeds.
6) It threatens crop diversity.
7) It has trade issues.

by Vedavyas.R

Little kites

'Little KITEs' IT Clubs is an unique initiative of KITE, which feature over 1 lakh student members. The Hi-School Kuttikootam programme, which was part of the Public Education Rejuvenation Mission of the State Government, through which students were given intense training in 5 areas such as Animation, Cyber Safety, Malayalam Computing, Hardware and Electronics, has been structurally upgraded in Student Police Cadets model, thus becoming 'Little KITEs IT Clubs'.

Little KITEs is set to become the largest Student IT Network in the Country.
Hon. Chief Minister, Shri. Pinarayi Vijayan has launched this unique initiative on 22nd January 2018 at Thiruvananathapuram. In addition to the already identified 5 Core areas, more topics have been added such as Development of Mobile Apps, Programming, Robotics, E-Commerce, E-Governance, Video Documentation, Web TV etc to the activity bouquet of 'Little KITEs`.


Objectives of Little KITES programme

1. To encourage the natural interest of students in ICT field and to create a culture for appropriate usage of technology and software.

2. To provide an opportunity for students to learn the different perspectives of ICT tools, so as to make use of them for their learning activities.

3. To ensure participation of students in the usage and up-keeping on ICT equipments at schools, thereby increasing the productivity of the school is ICT enabled learning.

4. To empower students to undertaken minor technical issues of ICT equipments.

5. To enrich students on proper and safe internet usage and cyber security, and also to inculcate the importance of language computing.

The Hi-Teach school programme is a major highlight of the Public Education Rejuvenation Mission of the State Govt, aimed at upgrading all classrooms to international standards. KITE was identified as the implementing agency for the programme, being the pioneer of ICT enabled education in the State for over a decade. The Detailed Project Report for implementing the Hi-Tech school programme for 4775 schools at a total estimated cost of Rs.493.50 Cr, prepared by KITE was approved by KIIFB, the nodal agency for monitoring all Govt. projects.

Each classroom would be equipped with Laptop, Multimedia Projector, Whiteboard and Sound system. Each Hi-Teach IT Lab would feature Desktop Computers with UPS, Multifunction Printers, LCD TV and a HD Camera. Specific Security features would be installed in schools. The IT Labs and Classrooms would be connected via network through a Central server in the Lab, which would allow sharing of information. High Speed fibre based Broadband internet would be made available in all classrooms.

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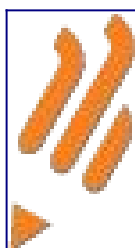
Moving ahead with time, KITE has enhanced the educational scenario in the state to a new level by making use of EDUSAT facilities. KITE, formerly IT@School Project, was the nodal agency for EDUSAT operations in the state. EDUSAT was the dedicated satellite that India has launched exclusively for the purpose of imparting education. With the technical support from ISRO, KITE successfully implemented various activities based on EDUSAT till date. The first phase of the programme was mainly through various interactive classroom sessions, facilitated by Receive Only Terminals, provided to selected schools, which enabled valuable exchange between subject experts and students, and besides such discussions, the students are able to expand their knowledge in academic subjects as well as gain new insights at the social level.

The second phase of EDUSAT initiative was the launch of an educational channel - IT@School VICTERS (Versatile ICT Resource for Students) in 2006. Through Receive Only Terminals (ROTs) a large majority of schools in the state are able to access VICTERS. Over and above this, VICTERS is transmitted through the local cable networks and covers 80 per cent of the households in the state. Currently VICTERS is telecast 17 hours in a day; from 6 am to 11p.m.

As part of Public Education Rejuvenation Mission, all class rooms in secondary and higher secondary sections in the State of Kerala has been converted as Hi-Teach class rooms and IT/ICT enabled education has become a reality. But deputing teachers for different training programmes in working days adversely affects the academic days and academic activities of students. Now-a-days Massive Open Online Courses (MOOC) are very popular and is much effective. In line with this –= KITE has developed a special tool for online courses/training;-- KITE's OPEN ONLINE LEARNING – KOOL., an online general tool to impart training/ courses to teachers, students, parents and public. In this tool, there is provision for registration, submission of assignment, communication to Course Mentor.

<u>Kerala Infrastructure and Technology for Education (KITE)</u>

Kerala Infrastructure and Technology for Education (KITE), formerly IT@School Project, was formed in 2001-02 to fuel ICT enabled education in the schools in the State. IT@School was transformed in to KITE in August 2017.

KITE is the first SPV (Special Purpose Vehicle) Company of the Education Department of the State. KITE also became the first SPV to get funded by Kerala Infrastructure And Investment Fund Board (KIIFB), the apex body for monitoring all the projects envisaged by the Govt. The hitherto scope of General Education Sector has now been extended further with KITE being positioned to fuel ICT support to Higher Education sector also including Arts & Science, Engineering colleges and Universities.

IT@School was formed in 2001, as a Project under General Education Department, to inculcate IT activities in Higher School sections in the State. The first breakthrough of IT@School came in 2005 when Information Technology was made a compulsory subject in STD 10. The launch of EDUSAT operations and broadband connectivity to schools commenced since then, the VICTERS channel operated by IT@School was the first Complete Educational Channel in the Country. By effectively making use of the Centrally sponsored 'ICT at School 'scheme, IT@School provided ICT infrastructure to 4071 schools during 2007- 2012. In 2016, IT@School re-initiated the ICT intervention in Lower Primary and Upper Primary sections, by launching exclusive ICT Textbooks viz; Kalipetti and e@Vidya. As many as 1.50 Lakh teachers from STD 1 to 12 has been empowered with ICT skills, enabling them to transact their subjects more effectively using ICT tools.

IT@School amply supplemented the State Government's Public Education Rejuvenation Mission with initiatives such as Samagra Content Portal, Sampoorna School Management software and School-wiki which connects 15,000 schools for collaborative content development process. A major recent highlight of IT@School was the 'Hi School Kuttikootam' programme under which over 1 lakh students are being provided specialized trainings in 5 different areas such as Animation, Cyber Safety, Hardware, Electronics and Malayalam computing. Through the transformation to a full-fledged Company under the Government, KITE has now more scope and authority for implementing various ICT programmes, when compared to the earlier Project mode of operation. KITE has already started the implementation of Hi-Teach school programme of the Education Department, by which 45000 classrooms in 4775 schools are being made Hi-Teach, for which KIIFB has already approved a funding of Rs.493.50 Crores.

The Little KITES initiative by Kerala Infrastructure and Technology for Education (KITE) has amassed over 58,000 members in 1,898 schools in Kerala to become one of the largest ICT network of students in the country.

Buoyed by the wide acceptance of the initiative among teachers and students, KITE is now planning to expand the network to more schools. "With the addition of new members from next year, over 1.20 lakh students are expected to be part of Little KITEs," says K.Anvar Sadath, Vice Chairman and Executive Director, KITE.

"The director board of KITE has recommended the government to introduce grace marks for Little KITES members in the SSLC examination, similar to those given in other programmes such as NCC, SPC, JRC and Scouts and Guides," Mr.Sadat said.

Applications have been invited from schools to set-up Little KITEs units. Online applications are to be submitted before January 15. Similarly, students of standard VIII also get an opportunity to become Little KITES members for next year. Students who want to be part of Little KITES have to be submit the application to the Head Master and undertake an aptitude test scheduled on January 23. The activities of Little KITEs include proper upkeep of ICT equipments in schools, computer literacy for parents, single-window help desk, special ICT training for differentially abled, free installation of FOSS based Operating system and applications for public, digital mapping, cyber safety check and awareness, updation in School Wiki, Conduct of IT Melas and Camps, development of news and documentaries for VICTERS educational channel, School level Web TVs and development of mobile apps. For details log on to www. kite .kerala.gov.in

by Muhammed Rihan

SPACE RESEARCH

 From the perspective of an Earthling, outer space is a zone that occurs about 100 kilometers (60 miles) above the planet, where there is no appreciable air to breathe or to scatter light. No one knows exactly how big space is.

From the time humans know there is something called space they tried to go on an exploration on it regarding this many machines and technology was used Yuri Gagarin was the **first person** to fly in **space**. His flight, on April 12, 1961, lasted 108 minutes as **he** circled the Earth for a little more than **one** orbit in the Soviet Union's Vostok spacecraft.

After the success of Yuri Gagarin many space agencies tried and to get in the book like NASA

some of NASA great achievements were

<u>Pioneer 10 and Pioneer 11,</u> launched in 1972 and 1973,respectively, were the first spacecraft to visit the solar system's most photogenic gas giants, Jupiter and Saturn.

<u>Voyager1 and Voyager 2</u> probes followed. They made many important discoveries about Jupiter and Saturn, including rings around Jupiter and the presence of volcanism on Jupiter's moon, Io.

<u>The Wilkinson Microwave Anisotropy Probe (WMAP),</u> launched in 2001, may not be as well-known, but it measures with unprecedented accuracy the temperature of the radiation left over from the Big Bang.

Another spacecraft with a profound effect on cosmology and astrophysics is the **<u>Spitzer Space Telescope,</u>** which observed the heavens-through infra red light.

Since 1999, the **<u>Chandra X-ray Observatory</u>** has been-scanning the skies in X-ray light, looking at some of the most distant bizarre astronomical events.

<u>APOLLO</u>
NASA's best space science mission? The one humans got to tag along on, of course! Not only was sending a man to the moon monumental for-human history, but the Apollo trips were the first to bring celestial stuff-back to Earth and greatly advanced our scientific-understanding of the moon. Before Apollo, many people weren't even-convinced the moon wasn't made out of cheese (well? non-scientists at least).By studying the moon up close and personal, and then carting? loads of moon-rocks home, the Apollo astronauts gathered data that helped us learn how old the moon is, what it's made out of, and even how it might have begun.
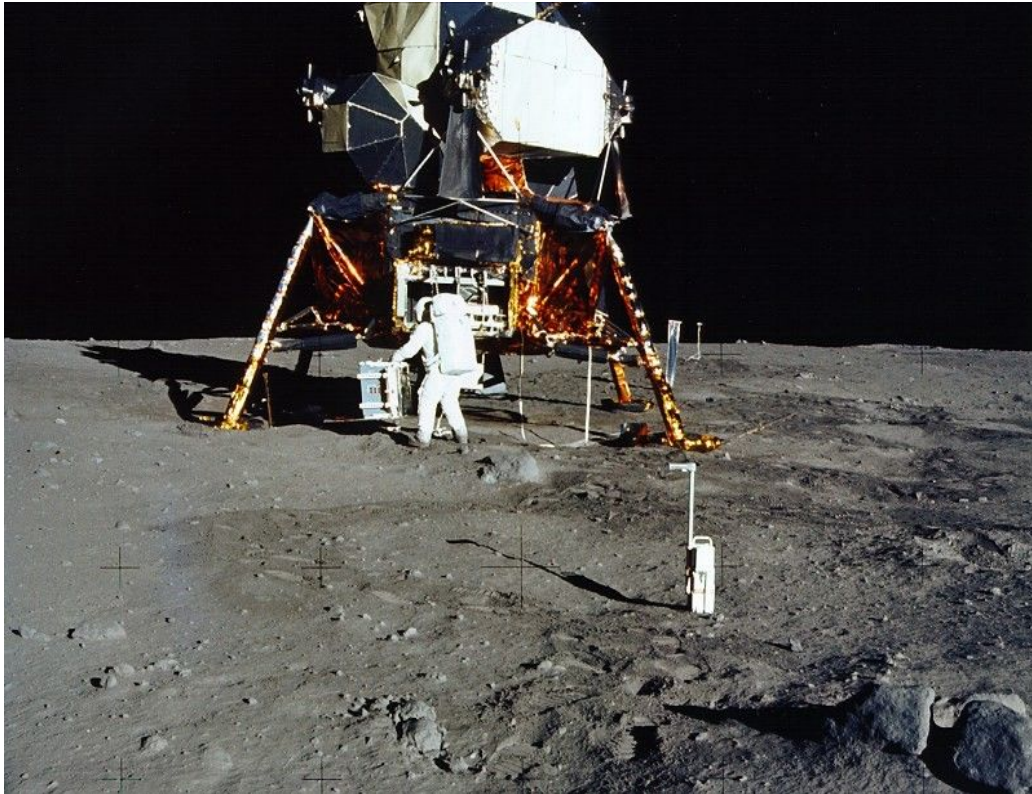
As we speak about NASA our country India has also gave the world more knowledge on space The main objective behind the creation of ISRO is to create space technology for national development

while pursuing space science research and planetary exploration. It was founded in 1969

Mangalyaan (2014): With the launch of Mars Orbiter Mission, India joined an exclusive global club. The mission cost was at least 10 times lower than a similar project by the NASA(US). The Rs 450-crore project revolved round the Red Planet and to collect data on surface, atmosphere and mineral composition of Mars.

Chandrayaan (2008): It was the country's first unmanned lunar probe. With the launch ISRO joined an elite list of just six space organisations to send an orbiter to the moon.

<u>Indian Regional Navigation Satellite System</u> (2016): The seven-satellite series which created India's very own satellite navigation system e terrestrial and will provide services in marine navigation, disaster management, vehicle tracking and fleet management, and navigation aide for drivers.

<u>Polar Satellite Launch Vehicle PSLV</u> (1993): It was developed in the 1990s and has become the Indian space mission's most reliable space system. The PSLV carried out its first

mission in 1993 but its first successful outing was the next year. It helped the launch of various satellites for historic missions such as the Chandrayaan and Mangalyaan.

The latest space-mission by ISRO was Chandrayaan 2

 <u>Chandrayaan-2</u> mission is a highly complex mission, which represents a significant technological leap compared to the previous missions of ISRO. It comprised an Orbiter, Lander and Rover to explore the unexplored South Pole of the Moon. ... On August 20, 2019, **Chandrayaan-2** was successfully inserted into lunar orbit.

Though it did not safe land on the moon the orbiter was a great success

Other space agency like **<u>The European Space Agency</u>** (**ESA)** is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that

investment in space continues to deliver benefits to the citizens of Europe and the world. **ESA** is an international organisation with 22 Member States.

Since the beginning of civilization, humanity has wondered whether we are alone in the universe. As NASA has explored our solar system and beyond, it has developed increasingly sophisticated tools to address this fundamental question. Within our solar system, NASA's missions have searched for signs of both ancient and current life, especially on Mars and soon, Jupiter's moon Europa. Beyond our solar system, missions, such as Kepler and TESS, are revealing thousands of planets orbiting other stars.

There is floating water in space.

Astronomers have found a massive water vapour cloud which holds 140 trillion times the mass of water in the Earth's oceans somewhere around 10 billion light years away – making it the largest discovery of water ever found.

Here are some fun facts about earth
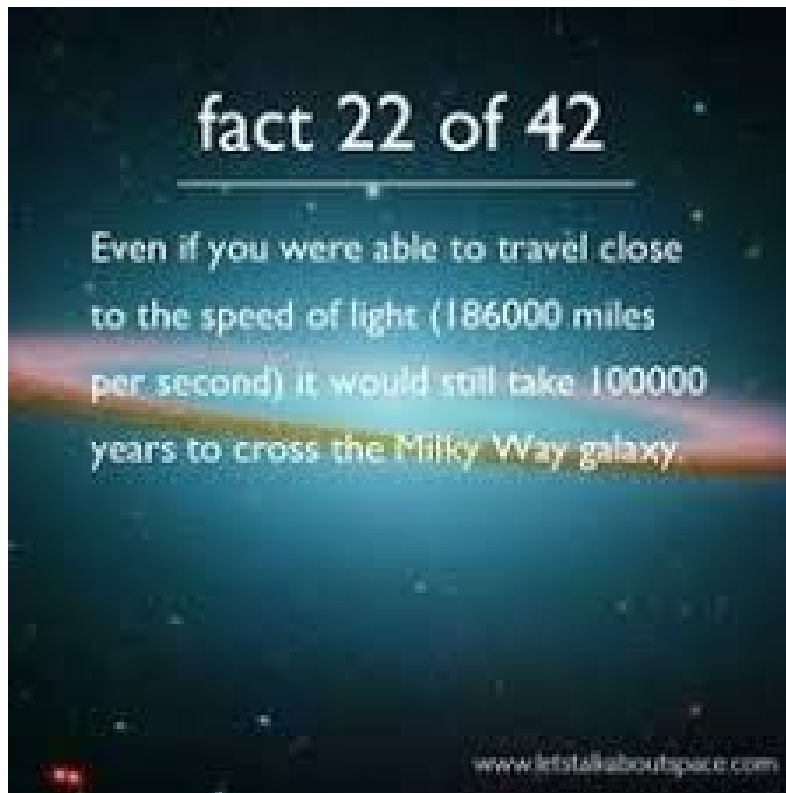
> ➢ *The hottest planet in our solar system is 450° C*
> ➢ *Halley's Comet won't orbit past Earth again until 2061*
> ➢ *Neutron stars can spin 600 times per second*
> ➢ *There may be life on Mars*
> ➢ *There may be a planet made out of diamonds.*
> ➢ *One day on Venus is longer than one year.*
> ➢ *In 3.75 billion years the Milky Way and Andromeda galaxies will collide.*

By
vishnu pradeep

Medical Equipments

The devices or machines that are used in medical surgeries called as Medical Equipments. It is also known as armamentarium. They are used to diagnose certain diseases. Treatment equipment includes infusion pumps, medical lasers and LASIK surgical machines. Medical laboratory equipment automates or helps analyze blood, urine, genes, and dissolved gases in the blood. The main examples are ultrasound and MRI.

Medical Equipment requiring calibration, maintenance, repair, user training and decommissioning activities usually managed by clinical engineers. Medical equipment is used for the specific purposes of diagnosis and treatment of disease or rehabilitation following disease or injury, it can be used either alone or in combination with any accessory, consumable or another piece of medical equipment. Medical equipment excludes implantable, disposable or single-use medical devices.

Related Journals of Medical Equipments

Inquiry: a journal of medical care organization, provision and financing,

International Journal of Biomedical Imaging, Journal of the Nepal Medical Association, Journal of the Osaka City Medical Centre.

Medical device

A **medical device** is any device intended to be used for medical purposes. Thus what differentiates a medical device from an everyday device is its intended use. Medical devices benefit patients by helping health care providers diagnose and treat patients and helping patients overcome sickness or disease, improving their quality of life. Significant potential for hazards are inherent when using a device for medical purposes and thus medical devices must be proved safe and effective with reasonable assurance before regulating governments allow marketing of the device in their country. As a general rule, as the associated risk of the device increases the amount of testing required to establish safety and efficacy also increases. Further, as associated risk increases the potential benefit to the patient must also increase.

Discovery of what would be considered a medical device by modern standards dates as far back as c. 7000 BC in Baluchistan where Neolithic dentists used flint-tipped drills and bowstrings. Study of archeology and Roman medical literature also indicate that many types of medical devices were in widespread use during the time of ancient Rome. In the United States it wasn't until the Federal Food, Drug, and Cosmetic Act (FD&C Act) in 1938 that medical devices were regulated. Later in 1976, the Medical Device Amendments to the FD&C Act established medical device regulation and oversight as we know it today in the United States. Medical device regulation in Europe as we know it today came into effect in the 1993 by what is collectively known as the Medical Device Directive (MDD). On May 26, 2017 the Medical Device Regulation (MDR) replaced the MDD.

Medical devices vary in both their intended use and indications for use. Examples range from simple, low-risk devices such as tongue depressors,Medical thermometers, disposable gloves, and Bedpans to complex, high-risk devices that are implanted and sustain life. One example of high-risk devices are those with Embedded software such as pacemakers, and which assist in the conduct of medical testing, implants, and prostheses. Items as intricate as housings for cochlear implants are manufactured through the deep drawn and shallow drawn manufacturing processes. The design of medical devices constitutes a major segment of the field of biomedical engineering.

The global medical device market reached roughly US$209 billion in 2006 and was estimated to be between $220 and US$250 billion in 2013. The United States controls ~40% of the global market followed by Europe (25%), Japan (15%), and the rest of the world (20%). Although collectively Europe has a larger share, Japan has the second largest country market share. The largest market shares in Europe (in order of market share size) belong to Germany, Italy, France, and the United Kingdom. The rest of the world comprises regions like (in no particular order) Australia, Canada, China, India, and Iran. This article discusses what constitutes a medical device in these different regions and throughout the article these regions will be discussed in order of their global market share.

By

Hrithik .k.p

ONAM CELABRATION

SCHOOL CLEANING

SCHOOL KALOLSAVAM

Our School Leader And Coupon Winner Receive Prizes From Superintendent

New Lathe Installing at Turning Workshop

SPORTS MEET IN SCHOOL

STATE SPORTS

STATE KALOLSAVAM2019-20

ANAMIKA SUNIL (Light music - 2nd price)

PATRIOTIC SONG(A Grade)

RIZWIN SIRAJ (Best Actor-Drama)

HIDU DAS (Drawing Water color First place A grade)

SANAL KUMAR-Drama Director

ABHINAND.M (1st Place A grade mimicry)

WINNERS

FOOT BALL TOURNAMENT

9th B-Runners cup

10th A Winners

spc

JRC

JRC IN REPUBLIC DAY

TOUR

STUDENTS PAINTINGS

ഭയം

ഭയമാന്റെണനിക്ക് അമ്മതരും
നറ്റ കേഥാറ കറിങ്കേയാട്ടം മറ്റം
നാങ്കേളന്റെറ സ് കേന–ിച്ച ലാളിച്ചതാണാ
കരങ്ങളിന്നന്റെമന്നന്റെമന്നാല്ും

പത്രത്തിൽ കണ്ടതാ ഒരു യുവതി
തൻ ഉറ്റവന്റെര തീർന്റെത്തന്ന്
രഥാിങ്കേയറിയ ഭക്ഷണത്തിൽ
വിഷം കേഥർത്തതാണങ്കേത്രു

ഭയമാണിന്റെന്നനിന്റെക്കാന്ന്
പുറങ്കേത്തക്ക് തലനീട്ടി)ാൻ
കഴുകൻ തൻ കണ്ണുകൾ
ഉറ്റങ്കേനാക്കങ്കേയാന്റെയന്റെന്ന

നീറുമീ ഉള്ളങ്ങൾ തൻ
വർത്തകളറിയുന്നു
നിർഭയ തന്റെന്നയങ്കേലാ
ഇന്നത്തങ്കേമാദാ–രണം

BY
നജാ ഫത്തിമ

ഭാഷ

ഭാഷ മനുഷ്യന്റെ മറ്റ് ജീവജാലങ്ങളിൽനിന്നു വ്യത്യസ്തരാക്കിത്തീർക്കുന്ന ഒരു പ്രതിഭാസമാണ്. ആശയവിനിമയോപാധിയായ ഭാഷ ഇന്നെത്ത കാലത്ത് എത്തിനിൽക്കുമ്പോൾ അതിനു സംഭവിച്ച മാറ്റങ്ങൾ അത്ഭുതാവ-മാണ് സംവേദനോപാധി എന്ന നിലയിൽനിന്നും ഭാഷ തരം താഴ്ന്നോ എന്ന് സംശയിക്കാം. ആംഗ്യഭാഷയിൽനിന്നും തുടങ്ങി ലിപിവ്യവസ്ഥ സ്വന്തമായുള്ള ലക്ഷക്കണക്കിന് ഭാഷകളിലേക്ക് അത് എത്തിനിൽക്കുന്നു. ദൂതന്മാർ മുഖേന സന്ദേശങ്ങൾ അയക്കുന്നതിൽനിന്നും മാറി എഴുത്തുകളിലേക്കെത്തിയ തലമുറകൾ നമുക്കുണ്ടായിരുന്നു. ഇന്നതെല്ലാം ഓർമ്മയായി. അക്ഷരങ്ങൾ യാതൊരു വ്യവസ്ഥയുമില്ലാതെ ഉപയോഗിക്കുകയും ഇക്കപ്പോഴത്തെ പ്രവണതയ്ക്കു ലിപിവ്യവസ്ഥയോ മാറ്റ് നിയമങ്ങളോ ബാധകമല്ല എന്നതിനെല്ലാം വഴിമരുന്നിട്ടത് ഇന്നത്തെ മാധ്യമ സംസ്കാരമാണ്. സ്മാർട്ട്ഫോണുകൾ ഇന്റർനെറ്റ് തുടങ്ങിയവയുടെ കടന്നുകയറ്റം ഭാഷയെ അതിന്റെ പട്ടക്കൂട്ടിൽനിന്നും ഇളക്കിമാറ്റിയിരിക്കുന്നു. അതിന്റെ തനിമ നഷ്ടപ്പെടുത്തുന്ന

കേരളത്തിൽനിന്നാരംഭിച്ച മാധ്യമ ശൃംഖല ഇൻസ്റ്റഗ്രാമിൽ എത്തിനിൽക്കുമ്പോഴും ഭാഷയ്ക്കുണ്ടായ മൂല്യച്യുതി പറയാതിരിക്കാൻ വയ്യ ഏത് വിഷയത്തിലേക്കും തന്റെ പട്ട് (തങ്ങളുടെ കഴിവിന്റെയും കഴിവുകേടിന്റെയും നാണമില്ലാതെ അവതരിപ്പിക്കുന്ന തലമുറയെ ഈ സോഷ്യൽ മീഡിയയിൽ കാണാം.

അക്ഷരങ്ങൾ കൃത്യമായി എഴുതാനറിയാത്തവനെ സഹായിക്കാൻ മംഗ്ളീഷ് കീബോർഡ് ഉള്ളപ്പോൾ കേവന്തെറ്റുകേവണം

ഈ അവസ്ഥക്ക് കാരണം നമ്മൾ തന്നെയാണ്ഇലപ്പോൾ ഇതിനേക്കാൾ വിനാത്മകമായ പലതും ഭാഷയിൽ ഇനിയും പ്രതീക്ഷിക്കാം. ആശയവിനിമയോപാധിയിൽനിന്നും (നമ്മുടെ (ഭാഷയുടെ പാരമ്പര്യത്തെ തകർക്കാൻ മാത്രം ഉതകുന്ന ഒന്നാകേയ്ക്കാം അത്

വിദ്യാലക്ഷ്മി ടീച്ചർ