## M.S.C.H.S.S NEERCHAL







Little KITEs MAGAZINE 2023 - 24



## Message



**D**igital Media plays an important role in receiving, producing sharing and broadcasting Informations. There is no doubt that digital publication have always being a great option that provide a wide new world for magazine design.

I have great pleasure to know that a digital magazine is prepared by the students of little kites brought out for the year 2023-2024.

ShivaPrakash M.K HeadMaster M.S.C.H.S.S Perdala Nirchal



# **Contents**

1. KALPANA CHAWLA

2. NATURE

3.LIFE WITH SPORTS

4.ಶ್ರೀನಿವಾಸ ರಾಮಾನುಜನ್

5.SPACE

6. RIVER GANGA

7. A PROBLEM IN NEED OF A CREATIVE SOLUTION

8. DR.A.P.J ABDUL KALAM

9. 5 FACTS ABOUT KARNA

10. APJ ABDUL KALAM

11. ಆರ್ಯಭಟ

(Shashank P Shenoy)

(ANJANA)

(SHREEYA)

(Bhavana Nayak)

(Pranamya Shyam)

(Grenisha Rodigues)

(Akshay Krishna)

(Sumanth)

(Abhijith CV)

(Anson Vion Crasta)

(Bhavana Nayak)



12. MOTHER NATURE

(Anusha)

13.FATHER OF COMPUTER

(Dhanvi Sharma)

14. ALL THINGS BRIGHT AND BEAUTIFUL

(Ayishath Ziya)

15. BEAUTY OF OUR HEAVEN

16. MEDICINAL PLANTS

(Anagha Lakshmi)

17. SONG OF NATURE

(Mita Shina Crasta)

18.THE SONG THAT NATURE SINGS

(Pranya M Nayak)



#### KALPANA CHAWLA

#### Mystery of NASA's Columbia Space Disaster

It was on 1<sup>st</sup> Feb 2003 NASA's Columbia Space Shuttle was returning to Earth. 7 Astronauts were seated in this space shuttle. One of them who was special for India. She was MISSION SPECIALIST **KALPANA CHAWLA.** These astronauts were returning to earth after spending 2 weeks in space and their families and friends were waiting for them with bated breath. This flight was special for everyone but for NASA it was routine flight. Because this was Columbia's 28<sup>th</sup> mission. At 08:44 am, the space shuttle re entered the earths atmosphere. The systems were working fine as expected and everything seemed to be normal. On the earth, in the space centre was the Capsule Communicator *CAPCOM Charlie Hobaugh*. He was the person communicator communicating with the space shuttle.

After some time, Charlie Hobaugh talked to the astronauts in the space shuttle about the reading of tire pressure. On the other hand, Mission commander *Rick Husband* was answering that suddenly the line gets cut. They only heard one word from him, "*Roger*" and his answer remained unfinished. Charlie hobaugh tries to establish communicator again, but there was no answer from the other side. Ten minutes passed. The attempts continued but there was still no answer from the other side. The NASA Space Centre team was unaware that there was an explosion in the Columbia Space shuttle. A few minutes later, the Kennedy Space centre gets a call." switch on the TV and watch the news". Such scenes were seen on the News that showed Columbia space shuttle has turned into pieces.

At 9:12 AM the pieces of the shuttle were spotted in Texas. By then, NASA had understood that something disastrous had happened. A few minutes later, George Bush addressed the nation. "my fellow Americans; this day has brought terrible news and great sadness to our country, the Columbia is lost. There are no survivors all seven astronauts were killed". One of them was 40 years old Indian born American program specialist Kalpana Chawla. A women whose story became an inspiration for the whole country. Kalpana Chawla was born on 17th March 1962 at karnal, Haryana. When she was capable of going to school, she didn't have a name but family members called her 'Montu'. When the name was so essential, she herself gave her a name as 'Kalpana'. She studied at Texas Engineering University. Later in 1998, she did her PhD in Aeronautical Engineering at University of Colorado. She was 26 years old at that time and she started working at NASA's Ames Research Centre. She had several pilot licenses and capable of driving planes.

In 1991, she became the American citizen and in 1994 she was selected member of 20 from 4000 registered members for astronautical training. After 3 years of training, in November 1997, kalpana went on her first flight into space. The Columbia Program flight STS 87. In this space shuttle, she orbited the earth for more than 250 times. She stayed in the space for 2 weeks. NASA's focus on this mission was re use ability which means 'to launch the same space shuttle for more than one time. There was mainly 2 space shuttles, one was challenger and the other one Columbia. After this incident, discovery, Atlantis and Endavoer were also used. Before the incident, Columbia had completed more than 27 successful missions.

You may think this was the major reason for the disaster but this was not. A minor reason led to such a disastrous event. The STS program was specifically designed for re use ability itself. After every flight, there was a long process of checking the damage and repairing it. Kalpana Chawla was travelling first time into the space in this mission. She was the main operator of a robotic arm designed for launching SPARTAN, a special satellite made for sending it to study sun's outermost layer. She launched it successful and became the first Indian origin woman to do so. That times Indian Prime minister Inder Kumar Gujral congratulated her. On 16 Jan 2003 at 10: 39 am, Columbia leaves



the earth for the last time. This mission was originally designed and planned for 2001 but it delayed for 13 times. Finally, in 2003 it was launched from the Kennedy Space Centre. There were 7 astronauts and their missions was to conduct non stop experiments.

For 16 days, they were in space, and carried out more than 80+ experiments. Many government and private agencies collaborated with NASA to conduct different experiments. Even though all data of this experiments were got collected, only 30% of data were collected and saved in the ground stations. Meanwhile, more than 40% of experiments got lost due to this incident. However, an interesting thing here is that there was a living group of roundworms survived this accident with minor heat damages. Now what was the main reason for this incident? Did the pilot make any decisions, Or did any other crew members made any hasty decisions? The truth is NO! None of the astronauts made any mistake. And even 3-4 minutes before the accident, none of them had any idea of what is going to happen. When it was 8:58, astronauts gets a indication about the tire pressure. Columbia's backup flight software showed some messages on the display to let them know that the landing gears four wheels on the left side of the space shuttle had lost pressure. And this warning came exactly after one minute before the time when the Columbia lost the signal with earth. The CAPCOM on the earth was trying to communicate because of the same reason.

Astronauts didn't know what was happening but some people of NASA knew this problem before! Not just a couple of days before but **16 days** before! They knew this when the shuttle was launched. The thing is that after exactly after 81 seconds of columbias launch. A small piece of foam got separated from the space shuttle and collided with the left wing. This foam was used to connect Columbia external tank with the main shuttle. It was only 60 cm long and 40 cm wide, it weighed only 750 grams. But it hit the left wing with such velocity, that the velocity estimated at that time was around 700 – 900 km per hour. Two- three days after this accident, some NASA engineers asked STS program Manager *Ron D. Dittemore* to take pictures to examine the damage that was caused to the space shuttle. They could have used their Spy Cameras satellite. But the engineers said that the chief refused. This is why when this was later found out after the incident, in April 2003, he resigned from his job acknowledging his mistakes.

In 2008, the book by space journalist Michelle Cabbage and William Hardwood 'COMM CHECK' stated that "the Defence was ready to use the spy cameras but the officials denied. A new internal commission was formed to investigate this which was named as **'COLUMBIA** ACCIDENT INVESTIGATION BOARD '. In short, CAIB. In august 2003, this commission released a fresh report in which it was explained detail why this Columbia Disaster happened and what caused it. This mission and report mentioned NASA'S neggillance again. NASA'S human space flight chief William Reddy's failure for using spy cameras. This is why the damage was not investigated and this mission went on as it was planned for 15 days. Until, 1st February, when this mission was over and the space shuttle was supposed to return earth, the damage in the left wing caused a small hole. The hole became even bigger due to air leakage. And a suitcase sized insulation broke into pieces. Due to this many instruments stopped working. Temperature reading started to diminish and tire pressure was also missing. Then, the space shuttle broke into pieces. All the 7 astronauts including Kalpana Chawla died.

However it is important to mention the CAIB report in 2003 stated that such



foam pieces were got separated in 69 missions out of 74 missions. Such strike was very common but this piece striked the wrong place at wrong time. After this incident, NASA stopped this mission for 2.5 years. This mission program was functional till the ISS started its working. NASA also paid tribute to Kalpana Chawla and other few crew members also. Like NASA's Landing site at Mars was named 'Columbia Memorial Station' and there are many asteroids around Mars and Jupiter which was named as these crew members name. That is why, today, somewhere far an asteroid is spinning around sun with its name as '51826 KALPANA CHAWLA'. Its 20 years ago after this incident and Thank God , No such space incidents are recorded again........



- Shashank P Shenoy 9<sup>th</sup> D



Kalpana Chawla with Columbia Spacecraft





## **NATURE**

NATURE IS SO GOOD

AND DON'T MAKE US RUDE,
IT GIVES US EVERYTHING
WITHOUT EXPECTING ANYTHING,
IT GIVES US FOOD TO EAT
AND GIVE US SHADE TO REDUCE HEAT,
IT IS SO GREEN
AND HELP US TO STAY CLEAN,
WITH TRILLIONS OF TREES
AND STUNNING CLIFFS,
SO, IT IS OUR DUTY TO PROTECT THE
NATURE
AND TO PROTECT THE FUTURE.



**Anjana** 



### LIFE WITH SPORTS

Sports is such an activity that it can be taken up by anyone at any age and any point in life. Adults, children and elders-everyone a like can take part in sports. Many regard sports as a more co-curricular or extra- curricular activity in schools. However in reality, sports play on equally important role as does education in a person's life. To achieve overall and all-round development in

life, one should be well versed in both sports and culture. While training sharpens the body and fitness. Thus, both

are essential.

There are numerous advantages of involving oneself in sports. First and foremost, as known by all and very definitively, competitions increase the physical fitness of an individual. Additionally, sports also contribute to building stable mental well-being of a person. Various research show that people who are in the daily practice



of sports in any form record better mental as well as physical health. Moreover, sports also eliminates the risk of a person catching diseases or facing any bodily interruptions. Competitions increases immunity and increase people's stamina.

A lot of people take up a lot of different kinds of sporting activities. There are many outdoor sports; these include cricket, batminton, football,hockey,

volleyball etc. Indoor sports such as various board

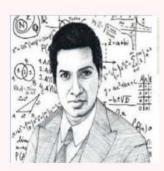
games, table tennis, chess erc. are also popular. One can choose from large variety. While outdoor sports contribute heavily in building the physical aspect of one's being, indoor games have a more psychological impact. However ,non of the activities can be categorised in a hard and fast way. Every sporting activity contributes to the well-being of a person, both physically and mentally.

Sports also builds several characteristics and personality traits in a person. Sports instils a sense of confidence and enthusiasm in an individual's attitude. People who are involved in regular sports practices show qualities of leadership, teamwork and excellence in their personalities and behaviours. Sports makes one competitive, however in a healthy manner. It also helps us to deal with failure and enables us to work hard in achieving our respective goals.

Shreeya 9<sup>th</sup> D







ಮಹಾನ್ ಗಣಿತ ಶಾಸ್ತ್ರಜ್ಞರಾದ ಶ್ರೀನಿವಾಸ ರಾಮಾನುಜನ್ ರವರು 1887 ಡಿಸೆಂಬರ್ 22 ರಂದು ಶ್ರೀನಿವಾಸ್ ಅಯಂಗಾರ್ ದಂಪತಿಗಳ ಮಗನಾಗಿ ಜನಿಸಿದರು. ಇವರು ಗಣಿತ ಶಾಸ್ತ್ರ ದಲ್ಲಿ ಮಹತ್ತರವಾದ ಕೊಡುಗೆಗಳನ್ನು ನೀಡಿದ್ದಾರೆ.



"1729" ಎಂಬ ಸಂಖ್ಯೆಯನ್ನು ರಾಮಾನುಜನ್ ಸಂಖ್ಯೆ ಎಂದೇ ಪರಿಗಣಿಸಲಾಗುತ್ತದೆ.ಭಾರತರತ್ನ ಶ್ರೀ ಶ್ರೀನಿವಾಸ ರಾಮಾನುಜನ್ ರವರು 1920 ಏಪ್ರಿಲ್ 26 ರಂದು ದಿವಂಗತರಾದರು.



**Bhavana Nayak** 



### **SPACE**

Space, the wonderland for children and mystery land for scientists. It is filled with everything but still it contains nothing. So I named it 'Something in Nothing'. The Space has been a great topic for debate, research and study. Most of our present children may know many things about space due to education. But for a large amount of people its still a mystery.

All of us know about solar system, with 8 planets and our 'Sun'. But there is a world beyond that. Filled with stars, comets, asteroids, supernovas, 'Black Holes'.



Galaxies, and the most important one 'Darkness'.

From the ancient times itself, we have many doubts on space and other things. These doubts resulted in many historic findings and novel inventions. Now may be we have an IST, Voyager 1, Chandrayaan, JSW etc. But still there's a lot more to be discovered.

Anyway, the mystery world has many mysteries which was unfolded and will be unfolded.

### **STAY TUNED!**

Pranamya Shyam N 9<sup>th</sup> C



#### **RIVER GANGA**

The Ganga is India's most important and iconic river. It flows down from its glacial source in the high Himalayas to course through five states in the northern plains before draining into the swirling waters of the Bay of Bengal through the



Sundarbans delta, the largest mangrove system in theworld.

Ganga originates as Bhagirathi. It extends from Uttarakhand from where it originates until the Bay of Bengal where it meets before passing through Uttar Pradesh, Bihar, Jharkhand and Bengal. The Tributaries are:Northern: Gandak, Gomati, Ghaghra, Kosi, etc. Ganga river flows throughboth Bangladesh and India. Its length is around 2525km and its mouth isGanges Delta. The river is also used for fishing, irrigation, and bathing, and it is worshiped in the hindu religion as the Mother Ganga.

#### **Grenisha Rodrigues** 9<sup>th</sup> D

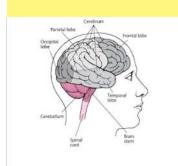


# A Problem in Need of a Creative Solution

In the 1870s, newspapers and printers faced a very specific and very costly problem. Photography was a new and exciting medium at the time. Readers wanted to see more pictures, but nobody could figure out how to print images quickly and cheaply.

For example, if a newspaper wanted to print an image in the 1870s, they had to commission an engraver to etch a copy of the photograph onto a steel plate by hand. These plates were used to press the image onto the page, but they often broke after just a few uses. This process of photoengraving, you can imagine, was remarkably time consuming and expensive.

The man who invented a solution to this problem was named Frederic Eugene Ives. He went on to become a trailblazer in the field of photography and held over 70 patents by the end of his career. His story of creativity and innovation, which I will share now, is a useful case study for understanding the 5 key steps of the creative process.





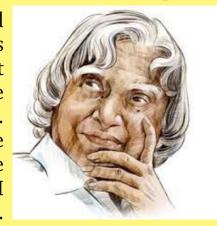
Akshaya Krishna.N



### Dr. A. P. J Abdul Kalam

Dr.A.P.J Abdul Kalam was born on in Rameshwaram. **APJ Abdul Kalam**, whose full name is Avul Pakir Jainulabdeen Abdul Kalam, was an Indian scientist, educator, and statesman. He was born on October 15, 1931, in Rameswaram, Tamil Nadu, India, and passed away on July 27, 2015. Kalam is widely known as the "**Missile Man of India**" for his pivotal role in India's civilian space program and military missile development.

Kalam began his career as a scientist and aerospace engineer, working with India's Defense Research and Development Organisation (DRDO) and later with the Indian Space Research Organisation (ISRO). He played a significant role in the development of India's indigenous satellite launch vehicle program and the Pokhran-II nuclear



In 2002, Abdul Kalam was elected as the 11th President of India, serving in this role until 2007. During his presidency, he focused on promoting education, particularly in rural areas, and fostering scientific research and innovation. He was widely admired for his humility, vision, and dedication to serving the people of India.

After his presidency, Kalam continued to be active in various educational and scientific initiatives, writing books, and delivering speeches to inspire youth. He was awarded numerous honors, including the Bharat Ratna, India's highest civilian award, in 1997.

Abdul Kalam's life and work continue to inspire people worldwide, and he is remembered as one of India's most beloved and respected leaders. His contributions to science, education, and public service have left a lasting legacy, earning him a place in the hearts of millions.



### **5 Facts About KARNA**

- 1) Karna was portion of Surya dev.
- 2) Karna caught the asani of Lord Rudra with his bare hands.
- 3) He conquered many kingdom in his Digvijay.
- 4) He broke Arjun's gandiva bow string 11 times.
- 5) He defeated many kings in Swargamular of Kalinga Princess



### APJ Abdul Kalam

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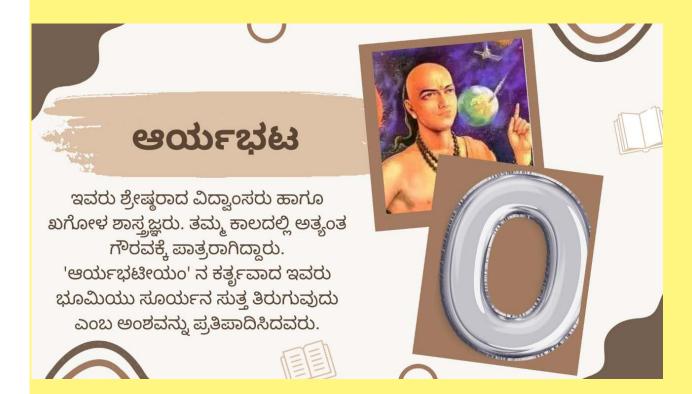


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Bhavana Nayak



## **Mother Nature**

Mother nature's glory And her simple stories, My granny used to tell, Beside the village well. She would lead us to the mountains. High above the sky, freely flowing fountains. Among the clouds we would fly unscathed, Our imaginations, like fledglings newly hatched. But, gone are those days of carefree stories, Nature's heart soaked in worries. Man's relentless exploitations, Consume nature without hesitation. Nature bleeds red with rust, Her crown decorated with dust. Oh! hear the plea, every nation, Restore mother nature, and save every future generation.

**Anusha** 



## "FATHER OF COMPUTER"

### Charles Babbage (1791-1871)

was a British mathematician inventor, and mechanical engineer, known as the

the

"Father of the computer", he conceptualized the first mechanical computing machines-the "Difference Engine" and ideas laid the oundation for modern computing ,even though his machines were never fully realized during his life time. His legacy endures as a key figure in history of technology and computation.

**Dhanvi Sharma** 



#### All Things Bright and Beautiful

by Clear Frances Alexander

All things bright and beautiful, All creatures great and small, All things wise and wonderful, The Lord Gad made them all.

Each little flower that opens, Each little bird that sings, He made their glowing colors, He made their tiny wings.

The purple-headed mountain, The river running by, The sunset, and the morning, That brightens up the sky:

The cold wind in the winter, The pleasant summer sun, The ripe fruits in the garden, He made them every one.

He gave us eyes to see them, And lips that we might tell, How great is God Almighty, Who has made all things well.



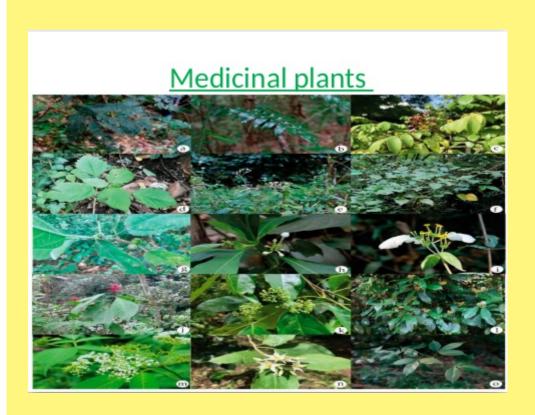
## Ayishath Ziya M B

#### **BEAUTY of our HEAVEN**

our nature, with a song that stirs the soul... a melody that lifts your spirits high... as the eagle soars aloft, on waves of wind, music's joy can bring you up and make you whole..."

### **Anagha Lakshmi**







## **Anagha Lakshmi**



#### SONG OF NATURE

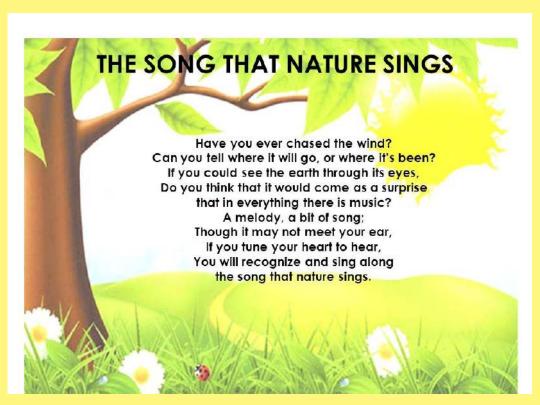
Morning sunshine is rising so soon Glories of nature is shining with bloom Singers sing with a glimpse of joy And the dimpling streams runs like a toy.

When the grasses laugh glowing green Animals come with a fairy scene When the glory of wind comes with a blow Nature with wheel is not so slow.

When the day of glory has past Greenery all around is still vast Nature's beauty will forever last Only a dew of water may cast.

### Mita Shina Crasta





# Pranya M Nayak



# AIR POLLUTION

AIR POLLUTION IS A MAJOR THREAT TO TODAY'S GROWING WORLD. EVERY DAY THE RATE OF POLLUTION IN THE ATMOSPHERE IS GETTING TO A HIGHER RATE. THIS IS USUALLY DUE TO THE POLLUTANTS RELEASED INTO THE AIR THROUGH MANY HUMAN ACTIVITIES. IT IS IMPORTANT FOR THE PRESENT GENERATION TO KNOW THE TREAT BEHIND THE SITUATION AND TO CONTROL IT BEFORE IT DESTROYS ATMOSPHERE.

CAUSES OF AIR POLLUTION

-THERE ARE MANY CAUSES OF AIR

POLLUTION. THE HUMAN ACTIVITIES

ARE THE FIRST AND THE ONLY CAUSE

OF ENVIRONMENT POLLUTIONOF ANY

FORM. ANYTHING THAT WE DO BY



BURNING OF ANY MATERIAL, BE IT HOUSEHOLD ITEMS OR INDUSTRIAL CHEMICAL RELEASE HARMFUL GASES CAUSING AIR POLLUTION. THE USE OF MOTOR VEHICLE SUCH AS CARS, MOTORCYCLE, BUSES, TRUCKS, TRAINS AND AEROPLANE USE A LOT OF FUELS WHICH EMITS A LOT OF CARBON DIOXIDE IN THE ATMOSPHERE AND THAT IS BIGGEST REASON FOR THE AIR POLLUTION. ALSO, THE USE OF REFRIGERATORS THAT RELEASE CHLORO FLURO CARBONS CAUSE AIR POLLUTION.

EFFECTS OF AIR POLLUTION - WITH THE AIR QUALITY DETERIORATING,
OUR FUTURE IS STAKE. INCREASING AIR POLLUTION CAN CAUSE SERIOUS
HEALTH HAZARDS LIKE CANCER AND CARDIAVASCULAR ISSUES. CHILDREN



SUFFER FROM BRONCHITIS AND PNEUMONIA. IRRITATION OF NOSE AND THROAT, ASTHMA ATTACKS, PULMONARY DISEASES ARE ALL OUTCOMES OF AIR POLLUTION. ANOTHER MAJOR EFFECT OF AIR POLLUTION IS EXTREME CLIMATE CHANGE. DISRUPTING FOOD CHAINS, EXTINCTION OF SPECIES, DEPLETING OZONE LAYER ARE SOME OF THE GRAVE ISSUES WE FACE TODAY

CONCLUSION- THE FRESH AIR IS THE FIRST CERTIFICATE OF OUR SURVIVAL ON THIS PLANET EARTH. THE LIFE WOULD HAVE BEEN SIMPLY UNBEARABLE WHEN THE POLLUTED AIR CONQUERS OUR MOTHER EARTH. THE GOVERNMENT AND CITIZEN HAVE A COLLECTIVE RESPONSIBILITY IN THE PREVENTION AND CONTROL OF AIR POLLUTION. THE EFFECT OF AIR POLLUTION WILL REDUCE UPON THE REDUCTION OF AIR POLLUTION. ALTHOUGH PEOPLE DO NOT HAVE ENOUGH RESOURCES



### **EDITORIAL BOARD**



LK BOYS



**LK GIRLS** 







