

Kilbil Chirps



KILBIL ST. JOSEPH'S
HIGH SCHOOL, NASHIK

Class 10th A

Year 2020-21



Principal's Message



As long as our ideas are expressed and thoughts kindled we can be sure of learning, as everything begins with an idea.

My dear Parents, Teachers and Students,

I was always attached to the thought **Home is the first school and School is the second home.** In fact, today it has come true. COVID 19 has altered our life including our school system, teachers, children and parents. Our homes have become school and parents have

become teachers too. Unimaginable! Invariably it is happening. It's a fact we have to live with it now whether we are rich or poor, far or near. E-learning has emerged as the best way of imparting education.

It gives me a great joy to meet you all through this e-magazine a great way to communicate and be creative. Enjoy our magazine as we move on with our lives. I thank all who contributed to this endeavour.

Be assured that the Management, teaching and non-teaching faculty of the school is working towards making this lockdown a meaningful and fruitful one. We will leave no stone unturned in educating our Kilbil family. I remain grateful to all the parents and well-wishers for your priceless support and cooperation at this moment. My sincere advice to all the students - Do not lose HOPE. Concentrate on the Silver lining amidst the thickest and darkest cloud at present times. We, at Kilbil St. Joseph's school, hope to see you all soon - refreshed and rejuvenated. Till then
SPARK A LIGHT - ILLUMINATE THE WORLD.

Sr. Flora UMI

Principal

Kilbil St. Joseph's High School, Nashik



Manager's Message



Dear Parents, Teachers and students,

Good habits shape your future

I am reminded of a little piece of wisdom from the life of Felice Leonardo Leo Buscaglia known as Dr. Love. There was a strange system in his family. At the end of each day, after everybody sat around the dining table, the father would ask each one, what they had learnt from the day. So each one had to share something that they had learnt on that day and only then they could eat. So in case anyone of them in the family said, No, today I learnt nothing, it seems the father used to say, Let everything remain on the table, come lets go and open the encyclopaedia. Lets learn something and come back to the table and only then we shall eat. Leo used to think that he was a cursed child of a bad father who did not allow him to enjoy his dinner and rather demanded that he would have to tell him what he learnt on that day.

As life moved on, Leo became a motivational speaker and a professor in the department of Special Education at the University of Southern California. Today, when he listens to the standing ovation of lakhs of people for his excellent performance, he says, ***But one thing has not changed; when I brush my teeth, and I come to the bed and lie down, I can still hear Papa ask me, 'Felice, what have you learnt for the day?'*** All great people have a history of discipline and cool habits **Yes, good habits shape your future.**

Keep learning something every moment. As infants, we're presented with a strange new world to discover. And with nothing else to do, we dive in head first, devoting all our time to learning how to use our five senses. At first we appear completely hopeless, not even realizing that our arms and legs are parts of our body. But soon enough, we start figuring some things out. Within a few months, we learn how to recognize faces better than a computer can.

COVID 19 too taught us new learning. Right now, we see ourselves collectively facing this pandemic, a situation for which we had no experience and very little preparation. And, at this time when the whole world is battling against it, Kilbil St. Joseph has added another feather to its cap; the E-Magazine, to provide a platform to our students to bring out their creative thoughts and expressions.

My hearty congratulations and appreciations to the Principal and the teachers for their untiring effort in moulding the young minds and bringing Kilbil St. Joseph to its zenith. I also extend my heartfelt gratitude to all the parents for their continued support to our Institution and its endeavours. Dear parents, you have, indeed, walked an extra mile to ensure that your children make the best use of their time.

I pray that you and your children would enjoy the journey as you sail through this enchanted ocean of brilliance. I wish you all a happy and grace filled days ahead.
May God Almighty keep us safe and healthy.

Sr. Alice Antony
Manager
Kilbil St. Josephs High School



*Our Mentors,
Guides
and
Philosophers*





Fore Word

The magazine is brought to you by the class X-A of Kilbil St. Joseph's High School, Nashik. This magazine consists various articles on various subjects of literature, science and certain art pieces. The editorial committee of this magazine consists of students of the class, with interest and knowledge in their respective subjects. Of all the articles and art pieces submitted, the best were chosen to be presented.

The committee is grateful to our principal, Sr. Floropia Borges and our class teacher, Mrs Yogita Kulkarni for giving us the opportunity to create this magazine. The committee is also indebted to Mr Shriram Sandhan (parent, Tanvi Sandhan) for compiling and processing the parts of the magazine and giving it its final look.

The committee hopes that the readers are in sound health and mind. In this pandemic situation, it is difficult for many people to make the ends meet. The committee requests all its readers, to help such people according to your capabilities. This magazine does not wish to hurt any sentiments of any individual, or group. The committee hopes you enjoy the content and learn from it.

The Editorial Committee



Yogita K.(Class Teacher 10th A)



Samyak S. (Science Department)



Chinmay B. (English Department)



Siddhi K. (Language department)



Tanvi S. (Art Department)



Theme of the year 20-21





Our Teachers Column

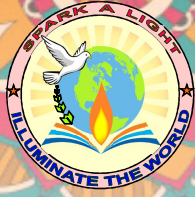


मैत्र जीवांचे

मैत्रीची ताकद आपल्या सगळ्यांना माहित आहे. उदात्त मैत्रीची अनेक उदाहरणे आपण ऐकली आहेत. मैत्रीखातर आपण काहीही करायला तयार होतो पण आपण एका अत्यंत जीवाभावाच्या मित्राला अनेक वेळा विसरून जातो. तो मित्र म्हणजे आपण स्वतःच ! आपणच आपले मित्र होऊ शकलो तर किती छान होईल! मित्र मित्राला संकटकाळी निःस्वार्थीपणे मदत करत असतो त्याच्या पाठीशी खंबीरपणे उभा असतो. गुणदोषासकट मित्र एकमेकांना स्विकारतात तसेच आपणच स्वतःला आहोत तसेच स्विकारून स्वतःवर प्रेम करून परखडपणे गुणदोषांची चिकित्सा करून स्वतःच्याच मनाशी संवाद साधला तर ! हो आपण हे कौशल्य आत्मसात केले तर बहार येईल. आपण अर्थपूर्ण आयुष्य जगू शकू. स्वतःच्या विचारांशी , भावनांशी आपण प्रामाणिक असलो तर कोणत्याही खडतर परिस्थितीला आपण तोंड देऊ शकू. स्वतःची बलस्थाने व कमकुवतपणा माहिती असेल तर नैराश्याची मभळ आल्यावर स्वसंवादाने त्यावर मात करता येईल. स्वतःच स्वतःला प्रोत्साहन देऊन जगण्याची उर्जा मिळवता येईल. कधीतरी दाटून येणारे एकाकीपणाचे काळे ढग या मैत्रीच्या जोरावर दूर लोटून स्वच्छंदी जगण्याचा आनंद घेता येईल. तर चला तयार होऊयात स्वतःशीच मैत्री करायला..

योगिता कुलकर्णी
वर्गशिक्षिका





Poem on Secondary Section

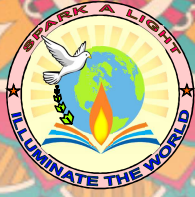
Yaha no worry,
kyunki section hai secondary....

Yaha ki jo hai queen woh **Sister Succorine**,
Yaad rahe ya na rahe lunch ki dish, bhulte nahi
bacche **Renu Tr** ki English,

Ye kuch bhi padhaye, students kehte hai aasaan tha,
aise padhati hai **Tr Kanta**
When she teaches students can repeat Ramayan
and Geeta, so much dedicated is **Tr Yogita**.

Screen se najar hati, lecture mein durghatna ghati,
Inki nazroon se haar koi chahe bachna, itni vigilant
hai **Tr Rachana**
Maths aur problems ke saat jo lagati hai temple run,
Aisi hai hamari **Tr Raji Jhonson**

Sanskrit wali jo hai cool dude, woh hai **Tr Garud**
Theater se bhi jyada hoti hai inke lecture mein seat,
Sab ki favorite hai **Tr Charanjeet**
Geography or maps se dikhati hai har kisi ko way,, ye
hai **Tr Savita Diwatey**



Sab ke liye jo hai khass, is section ke decorator hai
Sir Suhaas

He never says no and is always ready for any duty,
isiliye sabka favorite hai **Sir Rushi**

Dancing ideas bus inke dimaag mein hi laagey, sab
Jhukte hai **Megha Tr** aapke dance ke aagey,
Kabhi computer kabhi maths kabhi science ki banti
hai ye divaa,
Aisi hai hamari **Tr Reva**,

Soft spoken attitude se jo badhati apni khoobsurti,,,
Peace is the ornament of **Tr Rashmi Murty**
Hoga Kahi famous Ajanta aur ellora,, Hamari icon
hamesha hi hai **Sister Flora**

- **Sir Charudatt Bhujbal**





“THE ONE WHO CAN CHANGE YOUR LIFE IS YOU”

The motivation to nourish another is never to receive nourishment in return. It's really extending yourself to acknowledge a fellow human being.

It is an act of kindness deeply rooted in love—a love for all humanity.

It says that you honour and respect all people. Nourishing others also shows that you bring understanding into every situation.

It has the life potential to bring peace to our planet.

The best way to change another person is to change yourself.

Your own behavior and attitude are the only things completely under your control.

Tr. Esmie Almeida



Dear children,

I feel so glad to interact with you through this E magazine! You are in the most wonderful stage of life – Adolescence! An age where along with exploring the world around you, you are on a trip of Self exploration! A child on the way to find himself; Wow! It's ages since we went through the same – fears, confusion, realizations, heart breaks, firm friendships, secrets, pressures and the 'Eureka moments'. A time to take risks, fail or succeed...tears or smiles! But keep trying new adventures ... be ever willing to take up challenges. This is the most appropriate age to learn "the never give up" strategy. Remember, 'A ship in harbour is safe –but that is not what ships are built for.' You were not created to be harboured- you were rather created to sail through "rough and smooth waters!" Find the shore and shout your lungs out- Be happy. Celebrate your victory. Each small success needs to be celebrated. In case, you fail- don't worry , be brave for Courage doesn't always roar. Sometimes courage is the little voice at the end of the day that says "I'll try again tomorrow." This is the time to be strong. Persevere. Dream. Get down to make your dream come true. Hardwork is rewarded. Invest in firm and trustworthy friends. They are a 'rainbow' in your life. Love your parents. They are firm rocks on which you can stand in times of 'floods'. Lean on your gurus for they have woven the fabric of your life along with your parents. Value life and be thankful to the Almighty for loaning it to you- Make the most of it adding studded jewels to it and go forth and shine in the World. Reflect the values and spread love around. All the best.

Live simple but a value packed life. Make India proud of you.

- With fondest love
Mrs. Kanta Pathre



Student's Column



A Report

TRUE DIARIES

7th FEBRUARY, MODERN COLONY, NASHIK, 2018.

It was our summer vacation and we had a party to attend. This party was organised by my uncle who had newly set up his office. The party started at 8pm . The party was set up in the backyard so it was an open space. There were many trees around and the atmosphere was pleasant. The party got over and we were chilling out there. I was with my cousin sister sitting behind, chitchatting. Suddenly, I heard some noise like something is breaking and that noise was of a big, giant, tall tree. YES, a tree falls on both of us. I was really shocked and confused that what happened to us. I didn't get hurt because I was sitting at the corner. BUT my cousin sister got hurt on her forehead and she was bleeding. BY seeing her in this dreadful situation, I couldn't hold my tears back. She was immediately taken to the Hospital. In the HOSPITAL I couldn't look at her because if I did so, I would have cried even more. By the end of the treatment My sister was fine at that time and I just thanked GOD for saving both of us in this situation. We went to our home and I slept with my mother. Even Today whenever I see trees around me, that incident would strike me again. So, this was my thrilling and the most non forgettable day I had ever experienced and I would never forget it.

SANJANA POOJARI 10thA



Practical Application of Mathematics in our Lives

Maths is a subject which most of the students do not like or find it difficult to practice. Most students do not understand the beauty of mathematics, yet they have to do it till their tenth grade. The reason for this is that many students have a misconception that maths is completely theoretical and has no practical uses at all in his daily life, which is completely wrong. Maths is a beautiful subject which makes our life easy. Here are our some of the daily life uses of mathematics.

The first one is application of trigonometry.

Trigonometry can be used for measuring the height of a tall building. The distance of a building from a viewpoint and the angle of elevation can easily determine the height of the building using the trigonometric functions. This is used very frequently by engineers for certain measurements.

The common and daily life use of mathematics is that of calculations and accounts. Maths is used for calculating and recording the daily transactions.

The house in which we live is well designed by the architects. Architecture requires a lot of geometry. One needs to visualise the 3 Dimensional shapes required in the house and draw it on a paper. Architecture also requires mathematics for drawing big shapes on a small size of paper.

Navigation has a lot importance in the life of humans. Starting from Google Maps to location tracing done by the police is very important. A lot of basic geometry is required in the navigation system.

Statistics, a branch of mathematics, is used for calculating the success chances of an event. For example, the current vaccine study for Corona Virus uses statistics to determine, if the vaccine is safe for all or not.

Thus, in short in almost every field and at every moment of life maths is important.



SAY YES TO CHESS!!

Often we come across the word 'Chess', maybe in newspapers, radio or social media. We hear about lot many Chess tournaments taking place in every corner of India and world, because it is a sport originating from our country itself.

Chess has indeed a very interesting history. It is believed that ages ago, there was a lazy and irresponsible king. He was preety intelligent and knowledgable, but wasted all his time on the vast bed of his royal room sleeping and resting. His queen and his ministers were fed up of him and so to enhance his thinking capacity, Chess was eventually invented.

Chess is a board game resembling an army. King, Queen , Bishop , Knight , Rook and Pawn are parts of the attractive chessboard. It is all about checkmating each other by tricks of your own in stipulated time. The major advantage of this game is that it develops all round thinking, enriches concentration skills and teaches to battle till the last second.

In todays generation of distraction and anxiety, there is a need of stress busters like Chess. You only have to do one thing to become master of chess – Think Thrice! Because if a single decision of yours goes wrong, the entire situation goes in the favor your opponent.

If you get acquainted with all such minor tricks of taking right steps and performing your every single move with concentration, it will help you in your daily life also.

So come say with me YES TO CHESS!

-SARTHAK AJAY HIRAN





इकोफ्रेंडली दिपावली

धरती चीख रही है ; दर्द है निज गर्भ में,
विनाश काल ये आयगा ये हर मनुष्य संदर्भ में ।
बस करो ये हाय ; एक भी जाओ , धरा की तुम ललकार सुनो,
उत्सव के इस पल में तुम ; मनुष्यता का पाठ चुनो ।।

निज धरा की पर निःशंक मनुष्य ही सर्वश्रेष्ठ प्राणी है,
स्वरूप जननी धरा को ही दुःख कष्ट दानी है ;
उत्सव आप मनाए यदि तुम्हारा भु समभाग होगा,
उठाए त्राण जननी यदि तो कष्ट सूत का अधिक होगा ;

उत्सव का इस सार है तेज, प्रकाश , स्रोत,
धरती का रक्षण कर तुम हो सुजलाम् सुफलाम ओत स्रोत,
लौ दीपक की जलने देना ; आधार तिमिर का होगा,
किसी निर्बल को बल देना ; उल्लास ईश हो होगा ।



Avoid Crackers & Save Nature

Wishing You All
Happy Deepavali....

– तन्वी संधान



JOKES

Today at bank a boy asked me to check his balance.
So I pushed him over.

A thief broke into my house last night
He started searching money
So I also woke up and started searching with him.

Why did shakespeare only write with pen?
Pencils confused him 2B or not 2B?



Why don't eggs tell jokes ?
They'd crack each other up.

You: Teacher!

Teacher: Yes?

You: Would you punish me for something I didn't do?

Teacher: Of course Not Tell me what u want to convey

You: I didn't do My Homework.

Why do bees have sticky hairs?
Because they use honeycombs

Epic memory is that
While coping the notes
"Ye kya likha hai be"
Jo samaz raha hai who likh
baki ki aaisi hi
Design bana de

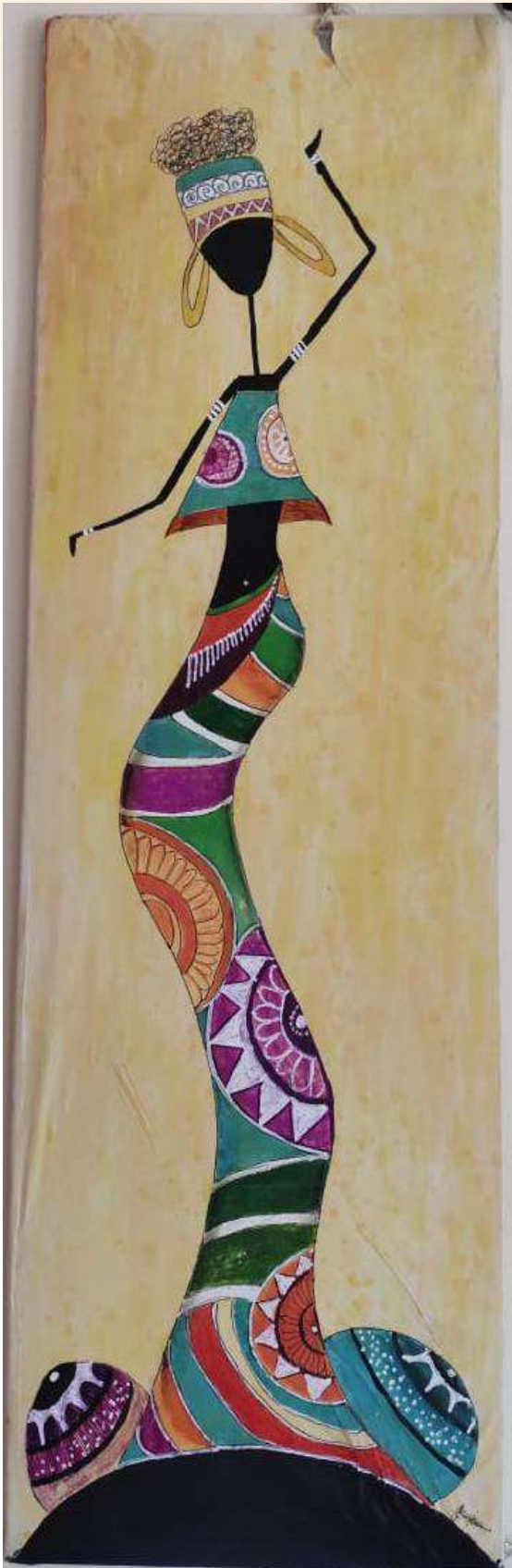


Annie burned 8000 calories yesterday
Left the brownies in the oven for too long

-Chinmay Baviskar



Artistic view



👉 Sanjana Poojari

Tanvi Sandhan 🖱



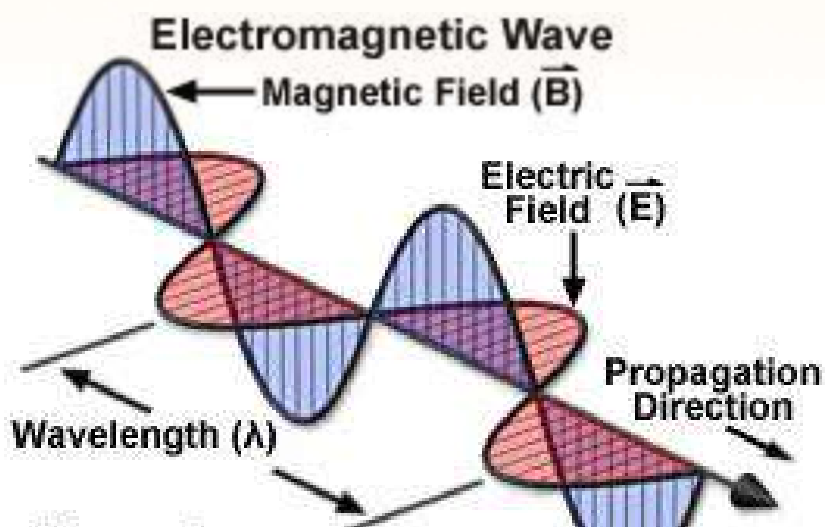
Tanvi Sandhan 🖱





LIGHT: Particle or Wave

Light by definition means 'A form of energy that gives the human eye the sensation of vision.' But in actuality light is also a type of wave to be specific 'Electromagnetic Wave' that is EMR. EMR is an example of transverse wave, where the two factors in its name electricity and magnetism oscillate through two dimensions resulting in wave motion along the third dimension that is velocity, which is light. Also, the speed of light(c) is a universal constant and value of c is same for all EMR. ($c = 299792458\text{m/s}$)



Here, the blue wave signifies magnetic field, red wave signifies electric field and they oscillate along velocity of light.

There are 7 basic properties of light :

- Reflection of light
- Refraction of light
- Diffraction of light
- Interference of light
- Polarization of light
- Dispersion of light
- Scattering of light

The properties of refraction, reflection and polarization can be explained by both particle nature and wave nature. But diffraction, interference are wave properties while dispersion and scattering are particle properties. So, a dilemma was formed over particle and wave nature of light.



This was clarified by Albert Einstein's work on photoelectric effect. This then proved that light has dual nature i.e. it is a wave as well as particle.

Let us understand the photoelectric effect.

Photoelectric effect: The photoelectric effect is the emission of electrons when electromagnetic radiation, such as light, hits a material.

And the energy of the electrons emitted (photoelectrons) is given as

$$E_e = \phi - E_l$$

Here E_e is the energy of photoelectron, ϕ is the work function that is the energy required by the material to lose the electron and E_l is the energy of incident light.

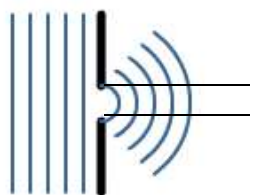
The energy of the incident light is in accordance with Planck's equation to calculate the energy of a wave

$$E = h\nu$$

Here E is the energy of wave, h is the Planck's constant ($h=6.6262 \times 10^{-34}$ Js) and ν the frequency of wave.

The photoelectric effect is explained by particle nature of light. Imagine the electron is a ball kept in front of you. You can't move the ball with just shouting at it. Another ball must hit it to displace the first ball. This means that light is particulate. But the properties of interference and energy equivalence in photoelectric effect say that light has wave nature.

Note: Diffraction refers to various phenomena that occur when a wave encounters an obstacle or a slit. It is defined as the bending of waves around the corners of an obstacle or through an aperture into the region of geometrical shadow of the obstacle/aperture.



So, we can conclude that light has dual nature that is it is a particle as well as a wave. The particle that is present in light is called a 'Photon'.



ONLINE WORLD

TODAY, DUE TO THE PANDEMIC WHICH HAS SHADOWED ALL OVER THE WORLD, THE SOCIAL MEDIA AND INTERNET HAS SPREAD ITS KINGDOM ALL OVER US. SCHOOL, OFFICE, BANKS, PAYMENT, SHOPPING, ETC. IS ONLINE NOW.

MANY INSTITUTIONS, UNIVERSITIES AND SCHOOL ALL OVER THE WORLD ARE TEACHING ONLINE. THE STUDENTS, FROM ANY CORNER OF THE WORLD CAN NOW LEARN WITHOUT WASTING THE EDUCATIVE YEAR. THE TEACHERS, STUDENTS AND PARENTS ARE LEARNING NEW THINGS FROM THIS ONLINE SCHOOL.

INTERNET HAS MANY ADVANTAGES WHICH CAN'T BE NEGLECTED NOW. BEFORE THE PANDEMIC, PEOPLE IN THE VILLAGE OR THE PEOPLE WHO ARE NOT ECONOMICALLY SETTLED DIDN'T EVEN HAVE SMART PHONES AND NET, LAPTOP, ETC. THERE WAS ACTUALLY NOT MUCH NEED OF INTERNET IN OUR LIFE. BUT NOW WITHOUT INTERNET WE CAN'T CONNECT TO THE WORLD.

BECAUSE OF INTERNET, STUDENTS ARE LEARNING, GOING AHEAD TO REACH THE SUCCESS. ALSO, THIS IS AN OPPURTUNITY FOR TEACHERS TO GET TO KNOW THE TECHNOLOGY.

ALONG WITH THIS WE ALSO NEED TO STAY SAFE ON THE INTERNET AS WELL. THERE ARE MANY ANTI-SOCIAL ELEMENTS WHO HAVE RAISED THERE HEADS AND CAUSING TROUBLES.

WE NEED TO BE CAREFUL WHILE DOING BANKING ONLINE OR OPENING ANY EMAIL FROM UNKNOWN PEOPLE OR COMPANIES. THE ONLINE WORLD HAS ITS OWN GOOD AND BAD SIDES, SO WE SHOULD ALWAYS FOLLOW THE GOOD SIDE, LEARN NEW THINGS AND STAY SAFE.

- SIDDHI KULKARNI





Autobiography of a Horse

Now that I am getting old and stiff in the joints, I like to meditate, while grazing in the pasture, on my foal days. I think that was the happiest part of my life. I had no work to do, and could run about after my mother, who was a fine white Arab mare, without any restraint. Most of my time was spent in the fields, where I nibbled the tender grass and capered about, while my mother was steadily grazing. But that could not last for ever. When I was old enough, the trainer came and, to my great indignation, fastened a long rope to my head, and then began driving me round and round in circles with his long whip. I was frightened and angry, but he went on till I was so tired that I could scarcely stand. However, my mother told me that it was no use my resisting, and to make a long story short, I was at last thoroughly trained as a riding-horse. I was bought by a young officer as a polo pony, and I soon got to love the game. He was a kind master, and a good rider the end I would do anything for him, and was quite proud when his side won the game. But he got into debt, and had to sell me and I was bought by a gentleman and a lady who kept a buggy, and was trained to run in shafts. I hated this work; and I am afraid I gave a lot of trouble, by going as slowly as I could. When my driver gave me the whip. I started shying at any object on the road and then I found that jibbing was a very good trick, and whenever I was whipped, I simply backed. My owner got disgusted at last, and sold me to a gentleman who was fond of hunting I was delighted to get back to saddle-work; and thoroughly enjoyed my gallops with the hounds after the jackal in open country. But an accident put a stop to that jolly life; for one day my master pressed me to a big jump which I knew I could not do. I did my best but fell short, and fell. My master was thrown and broke his arm, and I badly sprained one of my legs. I was in hospital for weeks, and then was sold to a gentleman who wanted a quiet riding-horse. He was a kind master, and used me well; and I was in his service for a good number of years. Now I am old, he gives me very little work, and I spend most of my time grazing in the pasture, and leading a quiet, contented life.

-Chinmay Baviskar



Forgotten Mathematics and Science of India

India – a land of great wonders and known for the world’s greatest landmarks and breath taking landscapes. But the whole world owes India for many inventions, mathematical and scientific discoveries.

Many know that ‘0’ was invented in India by the great mathematician Aryabhata. But fewer people know that the concept of Electric cell arose in India. Rishi Agastya, one of the most intellectual people of ancient era, describes in his book, the ‘Agastya Samhita’, a perfectly functioning electric cell offering 1 Volt of electricity in a compact earthen vessel.

The Vedantas, literally meaning the end of the Vedas, talks about Quantum Physics and Quantum Entanglement even before the concept was even known in the Ancient era.

Brahmgupta and Aryabhata, two of the greatest Indian Mathematicians and philosophers to have ever lived, gave concepts like the number ‘0’, trigonometry, positives and negatives and placement of ‘0’.

Brahmgupta compiled his theories into the ‘18 Siddhantas of Mathematics’. Al – Khwahirizmi translated these texts from Sanskrit to Latin and Arabic. But he translated some important concepts wrong. But, the westerns adopted these mistranslated texts and taught them all round the world. We have been learning the Maths which is essentially copied from India with errors.

Brahmgupta also introduced the rules to solve quadratic equations and also for computing square root. Gottfried Wilhelm Leibniz, who



introduced calculus, was beaten over 500 years before his theories by Bhaskara, who gave the basis of calculus with application of negative numbers and zero combined.

There are a lot more theories in Indian Maths and Science, which were discovered in India before the westerns. We give credit to those scholars in Europe who claimed to create concepts in Maths, while they were taken away from our great nation.

So we should spread awareness about Indian Maths and Science and teach to the future generations to make our country a standout Country.

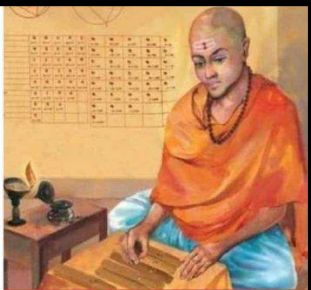
- Adwai Thakur

BRAHMAGUPTA
ASTRONOMY
MATHEMATICS

BRAHMAGUPTA

Brahmagupta was an Indian mathematician and astronomer.

He followed Hinduism.



BRAHMAGUPTA
Born: 598 AD, Bhinmal

Bhaskara II
1114 - 1185

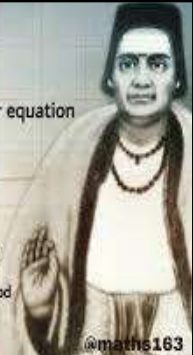
Bhaskara's Lemma: It states that, for equation $Nx^2 + k = y^2$, implies

$$N\left(\frac{mx+y}{k}\right)^2 + \frac{m^2-N}{k} = \left(\frac{my+Nx}{k}\right)^2$$

where, $N, x, y, m \in \mathbb{Z}$ and $k \in \mathbb{Z} - \{0\}$


Note: It is used during in-between chakravala method

#mathematician @maths163



π

The great Indian mathematician Aryabhat calculated the value of pi at 3.1416




Aryabhata (476-529)

Muhammad IBN Musa Al-Khwarizmi

Persian Researcher, Mathematician, Astronomer, and Librarian.

He was born in C. 780.





LIFE IS A MIRACLE- NEVER STOP DREAMING

God has given us life. He has sent us to this magical world Earth for some or the other purpose and if we find that purpose we win everything in our life. If God has given us such a wonderful life then we must not let our life go in waste instead we should make our life the best one.

Life is a boat of miracles which is sailing on this wonderful planet Earth. We just have to believe that one day the miracle will happen. Even though we face difficulties in our life we should never stop believing in ourselves. We should live our life to the fullest. We should never stop dreaming. We should never step back even if we face failure in our life. We should remove the thought that 'I can't do anything.' Instead we should think positive that 'I can do everything.' Nothing is impossible in this world to achieve. If we have hope, confidence and sheer courage in us nothing can stop from achieving our goal and fulfil our dreams. There is always a ray of hope even in difficult situation which can make our life the best forever. We should always look at the positive side of our life and move ahead. Instead of thinking of our past we should think of our future and do wonders in our present. And make our present the best one. Such positive attitude will only make us step forward in our life.

We should always try to get rid of our problems and head towards our goal. Hard work is the key to success. If we work hard to make our dreams come true then the fruit of success will be in our hands. We should try to grab every opportunity available to us which can change our life. We should always trust in ourselves, have faith and should try to motivate ourselves to fulfil our dreams. We should also try to seek inspiration from the successful people who worked industriously day and night, face all the difficulties which came in their way and achieved success. Always remember,

“Bright future belongs to those who believe in the beauty of their dreams.”

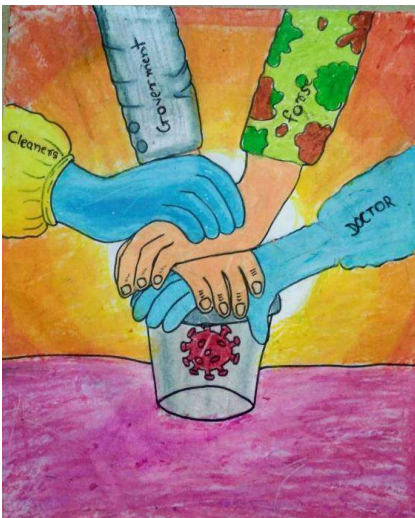
- Apurva Gangurde



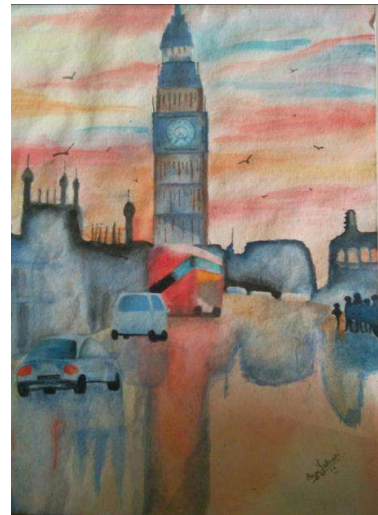
Artistic view



👉 Apurva
Gangurde
Arya
Jadhav👉

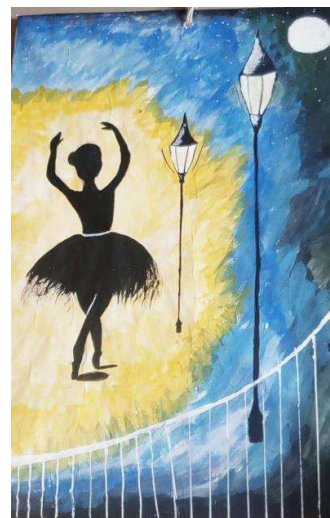


👉 Apurva
Gangurde
Arya
Jadhav👉



👉 Surbhi Patel

Sanjana Poojari👉





लॉकडाउन व ऑनलाईन स्कुल

१६ फेब्रुवारी २०२० ला lockdown ची घोषणा झाली. सगळीकडे भीतीचे वातावरण होते ,आता कसे होणार ,काय होणार ,आपण काय करावे, काय करू नये ,असे असंख्य प्रश्न सगळ्यांच्या मनात आले . lockdown चे महत्वाचे २१ दिवस संपले. पण.....पण आता पुढे काय आणि कसे करावे आणि काही करायचे तर कसे ?उदाहरण .म्हणजे रोजच्या जीवनावश्यक वस्तू पासून ते अगदी शाळा कॉलेज पर्यंत असे अनेक विचारांचे जाळे मनात घोळत असताना १ सगळ्यात मोठा प्रश्न मुलांच्या शिक्षणाचे काय? लहान मुलांना शाळा नाही म्हणून आनंद झाला ,पण ९वी,१०वी,११वी,१२वी,शेवटच्या वर्षातले मुलं आता यांचे कसे होणार परीक्षा तर सोडाच,पण शाळा बंद म्हंटल्यावर ह्या वर्गातल्या मुलांचे भविष्य कसे असणार? वर्ष वाया जाणार का? मुले हि सगळे संपेपर्यंत नुसते घरात बसून असणार का?हे असे असंख्य प्रश्न पालक म्हणून आम्हाला,आणि त्यांचे पालकत्व स्वीकारले आहे अश्या शिक्षकांना पडले.पण मुलांचे भविष्य, पालकांची काळजी शिक्षकांची मुलांना कसे शिक्षण द्यावे,कसे शिकवावे हि काळजी असताना सरकारने एक योग्य निर्णय घेतला, तो म्हणजे

ऑनलाईन शिक्षण देण्या बाबत .ह्या निर्णयामुळे सगळ्या पालकांना दिलासा मिळाला, आणि शिक्षणाचा प्रश्न सुटला.

पण.....पण हे ऑनलाईन शिक्षण म्हणजे सगळ्यांसाठी नवीन ,मुलांसाठी,शिक्षकांसाठी ,पालकांसाठी .पण तरीही शिकत ,शिकवत नवनवीन प्रयोग करत आज अगदी सक्षम पणे मुलं छान,सोईस्कर पणे ,सुरक्षित असे शिक्षण घेत आहेत.पण हे शिक्षण घेत असताना शिक्षकांना ,तंत्रज्ञानाला खूप अडचणी आल्या .पण शिक्षकांनी त्या अडचणींवर मात करून हाती घेतलेला शिक्षणाचा वसा चालू ठेवला ,काहीही झाले तरी मुलांचे नुकसान होऊ देणार नाही, हि त्यांची तळमळ आम्हाला [पालकांना]दिसली .मुलांसाठी शाळेने जीव ओतून मेहेनत घेतली सुरवातीला ऑनलाईन क्लास सुरु झाले तेव्हाच्या अडचणी आता फक्त आठवणी म्हणून राहिल्या प्रत्येक शिक्षकांनी आपल्या वर्गातल्या प्रत्येक मुलाकडे व्यवस्थित लक्ष दिले.त्यांना काय येते काय नाही याची दखल घेतली. अगदी खरोखर मुलं शाळेत असल्यासारखे आपल्या टीचर समोर बसून शिकताय असे वाटते. ह्या काळात मुख्याध्यापिकांचा ,सगळे शिक्षक ह्या सगळ्यांचे वास्तविक शाळेच्या कामकाजापेक्षा ,ह्या ऑनलाईन शाळेचे काम ,व्याप खूप मोठ्या प्रमाणावर वाढला आहे .पण तो ह्या सगळ्यांनी मोठ्या कौतुकाने हाताळला आहे. खरंच फार कौतुक करण्या सारखी कामगिरी सगळ्या शिक्षकांची व संपूर्ण शाळेची आहे.

इतक्या मुलांचे मेल चॅक करून प्रत्येकाला रिप्लाय देणे, असाइनमेंट देणे, त्या पुन्हा चॅक करणे, कोणाचे नसेल झाले तर त्याला वैयक्तिक सांगणे आणि असे बरेच काम वाढले तरी त्यांनी [शिक्षकांनी] एकही शब्द न बोलता सगळी कामे करत आहेत. इतके असून पण शिक्षणाच्या, शिकवण्याच्या बाबतीत कुठेही कमी पडले नाहीत. वेळोवेळी मुलांचे हित समजून त्या त्या प्रकारचा अभ्यास दिला. ऍक्टिव्हिटीस दिल्या जेणे करून ह्या ऑनलाईन क्लासचा मुलांना कंटाळा येऊ नये म्हणून, गाणी-गोष्टी, गेम हे मुलांकडून करून घेतले. प्रत्येक वेळी मुलांना अभ्यासा बरोबर शिरत पण शिकवली, संस्कार पण केलेत.

खरंच मी एक पालक म्हणून ह्या सगळ्यांची खूप ऋणी आहे. शाळेने आमच्या मुलांना घडवले. नवनवीन तंत्रज्ञान शिकायला मिळाले. आमची मुलं आणि आम्ही सगळे पालक संपूर्ण किलबिल शाळेचे खूप खूप आभारी आहोत. असेच लक्ष, प्रेम सदैव आमच्या मुलांवर असुद्या. मुलांना घडविणारे फक्त आम्ही पालकच नाही तर, शाळेचे खूप मोठे योगदान आहे.आम्हाला किलबिल शाळेचा आणि सगळ्या टीचर्स चा, सरांचा आणि मुख्याध्यापिकांचा खूप अभिमान आहे.

VAIDEHI KULKARNI

[PARENT, SIDDHI KULKARNI]





THE VALUE : EQUALITY

What is equality?. The dictionary defines it as "the quality or state of having the same rights or social status." But what does that exactly mean , and how does that apply to our lives today?.

Well , I believe that equality is helping someone out , being nice to people , or hanging out with people you wouldn't normally talk to , and just being a nice person . In general, opposed to discrimination against people on the basis of race , religion, cast ,creed , colour , nation , family, or any other reason you think of to be mean to someone.

'So you might be wondering how does it applies to you and me here and now' ?.

Our world can be a great place but it has its downsides too. Life can be really unfair and super scary every single person can tell you this , so why do I bring it up to you?. Well, I happen to think that a lot of discrimination goes around in the world is due to unfairness and fear , fear of the unknown.

Let's take a look back into our history . Americans had slaves because they looked a little different from the majority of population. Women's couldn't cast their votes because they were considered " inferior". Kings had peasant to do all their work and peasant were treated like slaves and we're dirt poor.

Once I saw a fortune from a fortune cookie that I really liked it said

"You cannot help everyone but every single person can help someone" . That's how equality is relevant . Just help someone it is not necessary that you should give something. If you see that your friends are excluding someone , ask them to join you . If see people making fun of someone defend, ask others to stop. Instead of stereotyping people in group get a chance to learn more about them before jumping up into conclusion. Its a simple task to make the world a better place.

So how can we solve the crisis of discrimination?.

I cannot solve that problem for you only you can do it. If want this injustice to stop then make it happen. I wish to make the world a better place one person at a time. So, this is how equality can be explained.

Martin Luther King once said

" Look to a day when people will not be judged by the colour of their skin but by the content of their character."

By Saniya saju.





Protein Misfolding and Neurodegeneration

A famous quote by a Spanish Neuroscientist, Santiago Ramón y Cajal: “As long as Brain is a mystery, the universe, the reflection of the structure of the brain will also be a mystery” has always motivated me to learn and pursue neuroscience. We know as humans that we are clearly different and most of what makes us different is the Brain. Everything we remember, everything we feel, everything we do, everything we aspire to is basically the organ ‘Brain’. Numerous questions like , how precise connections are made at the synapses during development that lead to different cortical structures giving rise to cognitive and emotional circuitry; understanding fascinating processes like learning and memory formation , dream science, consciousness have always intrigued me.

Interdisciplinary research is the key for neuroscience. Neuroscience draws on insights and developments in disciplines as diverse as molecular biology, electronics, biomedical engineering, statistics, psychology, biophysics, pharmacology and linguistics.

One major aspect of neuroscience research is unraveling mysteries behind neurodegenerative diseases. Let us first dive deep in understanding neurodegenerative diseases like Alzheimer’s and Parkinson’s disorder and its relation to amyloid formation. Protein misfolding and the accumulation of amyloid aggregates are prominent features in a vast array of human diseases including numerous neurodegenerative disorders. So what exactly is this amyloid aggregate or fibril? It is an insoluble, highly ordered aggregate of a protein and the major component of extracellular plaques found in Alzheimer’s patient’s brain. Amyloid associated neurodegenerative diseases occur via a mechanism that involves the abnormal folding and aggregation of specific disease associated proteins causing a toxic gain of function. Each neurodegenerative disorder affects a specific subset of neurons even though the disease associated protein is often present in many cells throughout the brain and the rest of the body. The precise reason behind the aggregation of a disease protein and how exactly amyloid fibril formation takes place remains unclear.

My work involved around understanding Alpha-Synuclein (a protein) aggregation in Parkinson’s disorder. Alpha-Synuclein is a presynaptic neuronal protein that is linked genetically and neuropathologically to Parkinson’s disease. Oligomeric, fibrillar conformations or aggregates of alpha synuclein are the toxic species that mediate disruption of cellular homeostasis, synaptic function and neuronal death. The goal of all the experiments that I performed was to elucidate the exact mechanism of alpha synuclein fibril formation, to know exactly which amino acids of the alpha synuclein proteins are coming in contact (the folding configuration of the protein) as the protein monomer (a single protein molecule) forms a misfolded monomer, then a dimer (2 protein molecules) followed by oligomer which forms protofibrils and then mature fibrils at the end of aggregation process. Before performing any experiment to monitor the aggregation kinetics of alpha-synuclein protein, the first task was to get the purified form of the protein. All the mutants of alpha-synuclein protein are expressed in vitro (in a test tube or culture dish outside the living organism) using a bacterial strain and then purified using chromatographic techniques. After the protein is purified, it is labeled with a fluorescence dye so as to monitor the aggregation kinetics of the protein using fluorescence spectroscopy. All the aggregation reactions were performed in vitro and visualized using fluorescence spectroscopy and circular dichroism. I used and worked on very expensive equipments and machinery for the purpose of protein expression and purification (in vitro), to study and visualize protein aggregation kinetics, protein monomer and protein fibrillar structure.



Many research groups around the world are working on amyloidosis, intrinsically disordered proteins that are responsible for various neurodegenerative disorders but most of the translational and clinical research in this aspect is yet to be done. I worked under the supervision of Dr. Samrat Mukhopadhyay at Department of Biological Sciences, IISER Mohali.

By

Mitra Kulkarni

BS-MS student

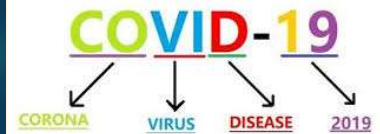
Department of Biological sciences

Indian Institute of Science Education and Research, Mohali





World after COVID-19



The corona virus outbreak has made the whole world topsy-turvy. It has damaged the overall situation of the world for almost a year now. Social, political, financial and educational systems have been badly affected all over the world. The life of youngsters/students has been considered to be most important of all, as youth is responsible for the future of the country.

Various steps have been taken to smoothly carry out education for all students. With the help of various scientific and technological advancements, online platforms have been developed for education facility and communication too. Online classes have proven to be very beneficial all over the world, with the help of which education can be made affordable, accessible to all. 'Learning from home' has many advantages for the children. Students can have a lot of free time to develop hobbies. This avoids the hectic schedule of a student which use to be generally observed during offline classes. Online classes have given students an opportunity for lively interaction with teachers, gain of knowledge from online platforms. Apart from advantages in academics, students can spend quality time with their family to build a bond between each other.

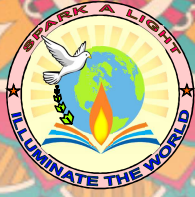
In order to control the spread of corona virus, lock down was observed in most parts of the world. Initially, it lead to inconvenience to the people to adjust a major change in the daily routine. But, later we all realised the importance of being conscious towards our health and spending some time with our family. The lock down observed all over the world has benefitted the biodiversity of nature. Due to lock down of people all over the world, the use of public transport, vehicles and industries reduced which minimized the pollution. The ozone layer of the earth recovered to a great extent due to minimization in human activities. The wildlife and plant biodiversity too improved at a great extent.

Whatever consequences we all may have faced at the beginning, later benefitted us all in an unexpected way!!! The earth recovered it's natural beauty. Hence, the corona virus pandemic has brought all the human beings closer to each other, also the development of the country is progressing smoothly.

- Tanaya Hatkar



Quote Unquote



माणूस म्हणतो,

पैसा आला की
मी काही तरी करेन...

पैसा म्हणतो,

तू काही तरी कर मगच मी येईन!

"सर्व विजयामध्ये
स्वतःच्या मनावरील
विजय हा महान होय."



शब्दांपेक्षा शांत राहूनच
जास्त आक्रमक होता येत



You don't have to
be GREAT TO
START you have
TO START TO BE
GREAT



If you Really want
to do something,
you will find a
way. If you don't,
you will find
excuses

The capacity to
learn is a gift; the
ability to learn is a
skill; the willingness
to learn is a choice



From : 10th A

