

SCIENCE ARTICLES SHORT STORIES & ARTICLES AUDIO & VIDEC
POETRY HOBBY & ART

WHERE SCIENCE MEETS LIFE

www.scienceshore.com

FOUNDING EDITOR
Dr K SRIKALA GANAPATHY

ADVISORS Ms. A ANNAPURNA SHARMA Ms. MALATHI MANAGING EDITOR / WEB DESIGNER
Ms. SREEPRADHA VENKATRAMANAN

EDITORS

Rtd. Prof. LATHA PREM SAKHYA
Ms. SUJATHA VARADARAJAN
Dr. THIRUPURASUNDARI C. J
Dr. K. VEENA GAYATHRI

SCIENTIFIC ARTICLES

COMPUTER VISION 101	1
-BHAGYA SHREE RAM	
THE WORKINGS OF SEIZE	5
MUTATIONS	
-DIVYA SHREE RAM	
ARE SUPPLEMENTARY VITAMINS A	3
MYTH OR A MAGIC?	5
-Dr. GEETHA BALA	
CURRENT INDIAN SCIENCE NEWS	
SERIES 2 - INDIAN OCEAN, MISSION	
SAMUDRAYAAN	9
-GITA BHARATH	
MAKING INTERLOCKING TILES	11
-PRINCE R BRIGHT	
2020 PHYSICS NOBEL – BLACK	4.0
HOLES	13
-SIVAAMRIDHA NIVEDIDHA .R	
GENETICS AND MANNERISMS	14
-Dr. SUJATHA RAGHU	- '

RESEARCH PAPER, SHORT STORIES & ARTICLES

BEST WAY TOWARDS HEALTHY LIVING -J P BHARATHI	16
-J P DHARATHI	
THE CHIMERA CHAPTER 2 THE CHIMERA -CHITHRA	17
AN IMAGINARY CONVERSATION CHILD FRIENDLY – PENCIL OR THE MOUSE?? -HEMA RAVI	20
LIFE IS LIKE A GAME OF CHESS -JELLIE N.WYCKELSMA	22
"ENGLISH ERRORS OF INDIAN STUDENTS" TALK SERIES – HEMA RAVI - REVIEW BY MADHUMATHI. H	23
JOB HOPPING - T.S. MANOHAR	25
ROLE OF THEATRE IN DEVELOPING THE ART OF OBSERVING, THINKING, LISTENING, AND LEARNING RESEARCH PAPER – PART 2 -ORBINDU GANGA	27
NATURE THRILLS	34

-PADMAPRIYA KARTHIK

RESEARCH PAPER, SHORT STORIES & ARTICLES

WHAT ARE RELATIONSHIPS? -PARVATHI	36
DREAM – THE STRONGEST VEHICLE OF CHANGE -Mrs. SETALURI PADMAVATHI	37
TRUE EDUCATION AND SUCCESS -THANKAM NAIR	38
TRAVELOGUE OUR EUROPEAN TOUR- 2010 -THANKAM NAIR	40
HIRAETH -VISHAKA DEVI	42

POETRY

THE RIGHT ONE -BHAGYASHREE MISHRA	43
CEPHALOPOD [Foot in the heador mouth] -GITA BHARATH	44
AVNI THE TIGRESS -GITI TYAGI	45
STILLNESS SPEAKS -JAYALAKSHMI	46
DARK CLOUDS -JELLIE N.WYCKELSMA	47
THE LUNCH-TREE -KAMAR SULTANA SHEIK	48
SHE -KEERTHANA RAVIKUMAR	49
DESENSITIZED -Rtd. Prof. LATHA PREM SAKHYA	50
UPWARD LADDER -Mrs. LEENA RAJAN	51
AN UNDEFINED BOND (FATHER TO DAUGHTER) -K. MONIKA	52

POETRY

WOMEN: THE GLOBAL LEADERS -NEHA S CHAKRAVARTHI	53
ON THE FRINGE OF MY NATION -NEHA S CHAKRAVARTHI	54
SOULFUL MONOLOGUE -PRIYA KARTHIK	55
I AM ETERNITY -ROOPA SUBRAMANI	56
THE SANDS' AGONY -SHALINI SAMUEL	57
NOT LIKE OTHER FLOWERS -SHREYA SEVELAR	58
ONLINE CLASSES - LIFEBOAT -K. SHRIJA	59
UNISON -Mrs. SETALURI PADMAVATHI	60
MEMORIES OF IMAGINATION -SUDHA RAJENDRAN	61
EARLY JANUARY APRICITY IN CHENNAI -VIDYA SHANKAR	62

SCIENTIFIC ARTICLES

COMPUTER VISION 101

BHAGYA SHRFF RAM

What do Snapchat filters, devices used to detect skin cancer, and the facial recognition software used by cops to discern criminals have in common?

Well, despite the widely differing uses of the above examples, there's the exact same robust concept in play behind them: Computer Vision!

An exceedingly important and useful branch of artificial intelligence, computer vision trains computers to interpret and understand the visual world. This means to teach a machine to view the world as human would.

Our eyes are our windows to the world, and if we're trying to make machines more intelligent and less artificial, it is imperative that they can learn to see, interpret and categorize objects as humans would.

Now if a human, say someone named Sangeetha, were shown a picture and asked to identify whether the image featured a dog or a lion, she would probably be able to give us the correct answer in a matter of seconds. (Unless of course, she was shown the Shar Pei.)

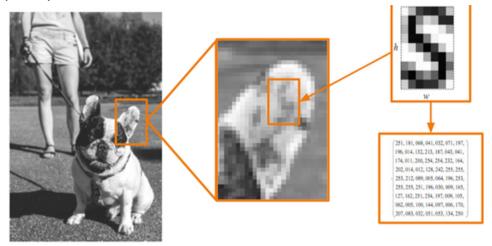


Now if Sangeetha showed (or inputted) the image that she was initially shown to a machine, the machine would work on millions of calculations in the blink of an eye, and still (almost always) deliver the correct result. So, how do these machines see?

Step 1: An image is represented as a matrix of numbers, where each number denotes the intensity of a pixel.

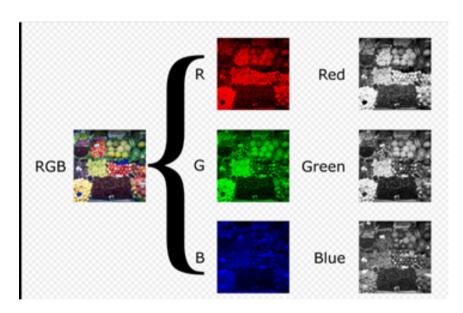
SCIENCE SHORE | PAGE

Step 1: An image is represented as a matrix of numbers, where each number denotes the intensity of a pixel.



That is how machines are programmed to understand how image pixels are made up. Whereas as humans we have an inherited knowledge to differ between the shades.

Step 2: Colour images can be represented in the form of 3D arrays.



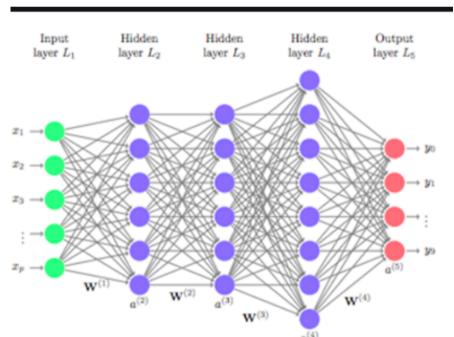
Computers are made to identify similar group of colours and then segment the image i.e. distinguish the foreground from background. The technique of colour gradient is used to find edges of different objects.





A large part of image detection and recognition in Computer Vision stems from a concept that has revolutionized machine learning; Neural Networks!

Inspired by how layers of neurons transmit information in the brain, this artificial network receives thousands of pixels when an image is inputted; you set up a set of rules that make the connection of the neural network stronger if it guesses right, and weaker if it guesses wrong.



In the above image, x1, x2, x3 etc upto xp are the inputs. These are the pixel values of the image that has been shown to the computer. L2, L3 and L4 are the hidden or the intermediate layers. Layer L5 is the output layer, where y0, y1 and so on display the final result (whether the image shown is that of a dog or a lion).

Greater the number of hidden layers, the more complex is the network, the more accurate will be the result. This means that the image will have to satisfy a larger number of rules before deciding whether it is a dog or a lion. For example, in the case of a dog, it would have to be four-legged with a small tail. Now, we could say in order to ascertain whether a particular animal is a lion, it would have to be four-legged with a long tail and a mane.

Suppose an image of a dog is inputted. The pixels traverse the various layers to check which of the criteria it satistfies. It is four-legged, but then so is the lion. So it is taken to the "next level", where it is studied for a small or a long tail, or maybe a mane. In this way, the network detects whether the image shown is that of a dog or a lion.

This was just a brief intro to Computer Vision. Now the next time you see read about a self-driving Tesla, you know exactly how it's navigating its way through the roads!

References:

https://towardsdatascience.com/a-beginners-guide-to-computer-vision-dca81b0e94b4 https://medium.com/lis-computer-vision-blogs/computer-vision-application-dc8412d9d392

SCIENCE SHORE | PAGE

THE WORKINGS OF GENE MUTATIONS

DIVYA SHREE RAM

Hi everybody! In this article, we'll be delving deep into the world of mutations! Let's start with a brief look at what exactly a gene is and its crucial role in a cell. Every cell in our body contains DNA (deoxyribonucleic acid), which is the genetic material of most living matter*. The DNA present in the germ cells (sperm and egg cells) gets passed on from one generation to the next and is responsible for how people look, and behave, to a certain extent.

Certain segments of DNA, which carry the blueprint to make proteins in the body, are called genes. Genes form proteins through two processes called transcription and translation. Transcription creates mRNA strands using DNA strands as templates, while translation consecutively involves the mRNA strands being read 3 nucleotides at a time, to eventually produce chains of amino acids which fold in space to form proteins with 3- dimensional structures. Proteins form tissues, act as a source of energy and often act as enzymes and proteins and are thus essential for the body.

Different kinds of mutations are possible in the body (some of which are at the genome or chromosomal level), but in this article, I'll be going in depth into the smallest and most mysterious kind: gene mutations. Gene mutations are widely studied, yet not completely understood by scientists due to the miniscule scale of size that it deals with. To give you an idea of this scale, the nucleus of a cell has a diameter of about 1/200th a millimeter. Within this nucleus, a strand of DNA (of length 2m) is present in a highly supercoiled state. Within the DNA, some segments are genes. These genes further consist of nucleotide sequences, which are where the mutations occur.

Gene mutations (alterations in the genes) can be in the form of additions, deletions, or substitutions. As the names suggest, an addition mutation is one where an additional nucleotide gets added to the strand, and deletion refers to the mutation where a nucleotide gets removed from the mRNA strand. We know that during translation, the mRNA strand is used to produce a chain of amino acids (or a protein). The nucleotides in this strand are read three at a time, and each set of three corresponds to a particular amino acid. Let's understand these mutations better with an example, using a small segment of an mRNA strand after transcription:

(The letters A, G, C, and U used in the below figures stand for the nitrogenous bases of RNA: Adenine (A), Guanine (G), Cytosine (C), and Uracil (U). These are just different compounds that make up an RNA strand. The different amino acids mentioned in the figures are Methionine (Met), Alanine (Ala), Leucine (Leu), Arginine (Arg), Cystine (Cys), Proline (Pro), and Glutamic Acid (Glu). These amino acids are chemical compounds which are the building blocks of proteins in the body).

SCIENCE SHORE PAGE

mRNA strand after transcription: AUGGCCCUGAGG

Protein formed from above during translation : Met- Ala- Leu- Arg

Addition mutation in the mRNA strand : AUG UGC CCU GAG G

(Marked U is added)

New protein formed due to addition mutation : Met- Cys- Pro- Glu

Deletion mutation in the mRNA strand : AUG GCC CUG AGG

(Marked G is deleted) : AUG CCC UGA GG

New protein formed due to deletion mutation: Met- Pro- STOP

As you can see here, the original protein that was meant to be made is very different from the proteins formed because of addition or deletion. This is because addition and deletion lead to frame shift mutations, where the reading frame (way that the nucleotides are read 3 at a time) of the nucleotides shifts. In the protein formed because of deletion, you would have noticed that the amino acid chain stops after two amino acids, when it corresponds to the code UGA. This is because UGA is one of the three codes that marks the end of the amino acid chain. UGA, UAG, or UAA are present at the end of every mRNA strand, and are responsible for the amino acid production stopping, and the amino acid chain detaching from the ribosomal units to fold in space and from a 3D protein structure. Addition and deletion gene mutations, therefore, can lead to quite some big changes in the body.

Another type of gene mutation is the substitution of a nucleotide. Taking the same example that we used above,

mRNA strand after transcription : AUG GCC CUG AGG

Protein formed from above during translation: Met-Ala-Leu-Arg

mRNA strand after substitution of

the second G by A : AUG ACC CUG AGG

New protein formed due to substitution : Met- Thr- Leu- Arg

In this example, since the second amino acid in the chain is different, the resultant protein will also be different.

These mutations are often caused due to errors in DNA replication and exposure to harmful radiation or chemicals. Although several mutations are harmful, in the long run, they increase variation within a population. Sickle cell anemia is a disease where the red blood cells of the body are shaped like sickles. This disease is a result of a seemingly trivial alteration in a hemoglobin molecule, where one amino acid is replaced by another. This goes about to show the level of precision and accuracy within our body, which is absolutely mind boggling! Often, one microscopic, seemingly trivial change can lead to the development of a life- changing condition.

Mutations are a vast and fascinating topic of study, and I hope that my article helped you learn a little about them! Thank you!

*Viruses are the only exception here; not all viruses contain DNA. Some contain DNA, while some other viruses (called retroviruses) contain only RNA.

SCIENCE SHORE | PAGE

ARE SUPPLEMENTARY VITAMINS A MYTH OR A MAGIC?

GEETHA BALA

Vitamins are essential nutrients present in minimal amounts in natural foods that help the human metabolism in regular functioning and maintenance. Vitamin deficiencies may increase the risk of developing health issues. To meet the recommended dietary allowance (RDA), nearly half of us take a multivitamin/mineral supplement every day so as to provide the support our body needs to stay healthy. Extensive advertisements on vitamins and their wide availability lead to high prevalence of their consumption among people; but are these pills actually helpful or is it just a myth? The efficacy of multivitamins and minerals is unclear, still, the percentage of adults using vitamin and mineral supplement has increased very rapidly over the years. About one third of adults and half of population more than 55 years consume at least one supplement per day. Dr Larry Appel, M.D., the director of Johns Hopkins Welch Center for Prevention, Epidemiology and Clinical Research says that "Pills are not a shortcut to better health and the prevention of chronic diseases, however, other nutrition recommendations have much stronger evidence of benefits—eating a healthy diet, maintaining a healthy weight, and reducing the amount of saturated fat, trans fat, sodium and sugar you eat". Research shows that multivitamins does not reduce the risk of heart disease, cancer, cognitive decline or an early death and it should also be noted that vitamin E and betacarotene supplements appear to be harmful at high doses. Folic acid supplements are a special exception for women of child-bearing potential as it prevents neural tube defects in babies when women take it before and during early pregnancy. It should be well noted that supplements are meant to be supplementary; they enhance benefits already provided by eating a well-rounded diet and they should never be replaced for healthy diet that are nutrient-dense. A three healthy meals a day is enough to get the vitamins, minerals and other nutrients that we need. However, the meals should include a plenty of produce consisting of two or more servings of fruits or vegetables at every meal, whole grains like cereals, low-fat dairy and fat-free milk and yogurt and proteins.

References:

HadiHamishehkar, FarhadRanjdoost, ParinaAsgharian, Ata Mahmoodpoor, SarvinSanaie, Vitamins, Are They Safe? Adv Pharm Bull, 2016, 6(4), 467-477 doi: 10.15171/apb.2016.061

https://www.hopkinsmedicine.org/health/wellness-and-prevention/is-there-really-any-benefit-

tomultivitamins#:~:text=The%20researchers%20concluded%20that%20multivitamins,harmful%2C%20especially%20at%20high%20doses.

SCIENCE SHORE | PAGE

CURRENT INDIAN SCIENCE NEWS

SERIES 2- INDIAN OCEAN, MISSION SAMUDRAYAAN

GITA BHARATH

The world of water contains greater adventure than the depths of space. The oceans teem with minerals, plants, animals, thousands of types of each. There are still some two million oceanic life forms, including microscopic ones that are yet to be documented! We even owe our lives to some of these plants, known as phytoplankton, which get their own energy through photosynthesis and are responsible for producing an estimated 80% of the world's oxygen.

According to the Ocean Service, man has explored less than five per cent of Earth's oceans. As researchers strive to discover more, we're continually getting to know our oceans better. The world's longest mountain chain is underwater, stretching sixty five thousand kilometers around the globe. This is the Mid-Ocean Ridge, almost entirely beneath the ocean. It's said that this mountain chain is less explored than Venus or Mars.

The deepest part of the Pacific Ocean, the Mariana trench is seven thousand feet deeper than the height of Mount Everest. An interesting trivia from Indian Ocean facts is the discovery of a submerged continent in this ocean named- the kerguelen Plateau' which is believed to be of volcanic origins. Imagine, a whole unexplored continent!!

Oceans have immense economic importance. Their resources include food, fuel, renewable energy, minerals, sand and gravel and tourism. Sustainable fishing, seaweed cultivation, etc, could wipe out food deficits easily.

The ocean is the 'new resource frontier', the deep seabed is home to a variety of valuable minerals and metals, which lie hidden in underwater ridges, seamounts and sediment; polymetallic nodules comprising copper, nickel, cobalt, manganese, iron and rare earth elements are key to making modern gadgets, from smart phones and laptops to pacemakers, hybrid cars and solar panels; These metals are not widely available in India, so they have strategic importance, as well; Sediment kicked up by underwater mining would dissolve and resettle, and there would be no carbon emissions, unlike on land; There would be no need to build roads, infrastructure or relocate communities etc.

The Indian Ocean has its own contribution in the world trade, already. Besides the navigation routes and mineral deposits; this ocean also has many oil deposits which make about 40 percent of total world production.

The Deep Ocean Mission, announced recently by New Delhi is expected to be launched in next couple of months. It aims to conduct the exploration of the Indian Ocean as the ISRO does for space. National Institute of Ocean Technology will launch Samudrayaan by 2022. Currently, submarines can go about 200 meters deep under the sea. The submersible vehicle to be developed can crawl on the seabed at a depth of 6 km for 72 hours at a stretch.

This will help India join a select group of developed nations in mining metals from deep oceans. India could be the first developing country to undertake such a project. The international sea bed authority has allocated a75000 square km site in the central Indian Ocean basin for exploration and extraction of polymetallic nodules. These are about 200 million tons of iron, 90 more of manganese, some copper, nickel and cobalt.

INCOIS gliders are the working vehicles of the sea. The Indian National Centre for Oceanic Information Services has successfully deployed gliders off the Chennai coast.

Incois gliders last for four years, transmit data every ten days. These Slocum gliders are capable of going underwater up to 1,000 metres deep and move about eight centimetres per second. Gliders along with tide gauges fitted with GPS sensors will give a rounded data to understand the oceanic ecosystem better because the movements of the sea along with the atmospheric systems control the monsoons, cyclonic storms, wave surges besides tsunamis.

The oceans' resources include food, fuel, renewable energy, minerals, sand and gravel and tourism. Sustainable fishing can significantly reduce the burden of the world's hunger. Seaweed farming too, is to start up in a big way, in the Indian Ocean, for the world demand for seaweed is 33 million tons. India has a potential of a million tons, but produces very little now. Seaweeds are used in food, pharma, and plant nutrition industries, because they are packed with super antioxidants.

With its long coastline, mild weather, sandy beaches and a gently sloping seabed, India has the potential to develop a massive ocean economy, and Samudrayaan is a step forward in this direction.

Content Courtesy: Sourced from the article published in the newspaper, The Hindu.

MAKING INTERLOCKING TILES

PRINCE R BRIGHT

I am Prince R Bright studying in class 11th in Government Model School, Thiruvananthapuram. One of my hobbies is gardening. While planning it I decided to put a path using interlocking tiles.

When I asked the price of the interlocking tiles it was very expensive. So I decided to make them in an economical way at home. I told my father about this idea and he bought for me 10 rubber moulds and other necessary things for making it. I learnt to do it on my own in a trial and error method and soon attained perfection. Everyone can make it easily. I will explain the making of the interlocking tiles.

THINGS NEEDED:

- (1) Rubber mould
- (2) Black oxide, red oxide, yellow oxide or any other colors you like
- (3) White cement
- (4) A Mortar pan
- (5) Half inch stone chips
- (6) M sand or River sand
- (7) Cement
- (8) Oil, Brush
- (9) Trowel

MAKING:

First take the moulds and brush it with oil and then take the white cement and any of the colored oxide and mix by adding enough of water into a paste like consistency. Take the mould which we oiled and then put this mixture into it and then shake well (remember the mixture should be in about .5cm thickness). Rubber mould gives shape to the tile. One can buy any type of rubber mould they prefer to make the tile.

Then after a couple of minutes take the half inch stone chips, sand, and cement (Mixing ratio 1:3 that is 1mortar pan cement must be mixed with 3 mortar pan sand). Mixing must be done according to the size of the mould. Black oxide gives colour to the tile. This is also available in the market. One can buy preferred colour of oxide and mix with cement for making tiles colourful.

Now this should be put over the first layer in the mould. Then shake the mould so it spreads equally.

After 24 hours the tile will be ready. Then it should be submerged in water for the next 24 hours for the setting of cement.

According to your requirement you can make the tiles. The more you make the better you become in this art.

Then start making your path.



2020 PHYSICS NOBEL - BLACK HOLES

SIVAAMRIDHA NIVEDIDHA

The Nobel Prize for Physics 2020 was divided 1/4 and one half was awarded to Roger Penrose, "for the discovery that black hole formation is a robust prediction of the general theory of relativity", the other half jointly to Reinhard Genzel and Andrea M Ghez for the discovery of a super massive compact object at the centre of our Milky Way galaxy.

Black holes are undoubtedly one among the most mysterious phenomena in the universe. In 1965 Roger Penrose published his paper on singularity theorem. This was the first genuine post-Einsteinian result in General theory of relativity, wherein he introduced the concept of closed trapped surface and also that the General theory of relativity leads to the formation of black holes. Black holes were only a hypothesis until the first observational hints of the super massive black holes was achieved by the Dutch astronomer Maarten Schmidt in 1963 by following the radio location obtained by Schmidt, Hazard, Mackey and Schimmins. He identified QSO 3C 273 as an extragalactic light source outside of Milky Way galaxy with a redshift 0.158. This is a surprising result because the large distance of the point source implied that its luminosity is a thousand times larger than that of our entire galaxy. This was when the astronomers realized that the quasars aren't isolated objects inside Milky Way galaxy but are located at the centre of distant galaxies. This lead to the realization of the concept of "Active Galactic Nuclei (AGN) and that these could be just super massive stars, probably as heavy as several million solar masses". But such a massive object is highly unstable and hence it is shortlived, therefore they could neither be quasars (stars). This was when Penrose came up with, The Singularity theorem in 1964. In 1939, the American physicist Robert Oppenheimer together with his student Hartland Synder deciphered the implications and importance of Schwarz child's radius and as a consequence declared, "The star thus tends to close itself off from any communication with a distant observer; only its gravitational field persists". Oppenheimer and Snyder described a spherically symmetric case where the star dies and falls within its own Schwarzchild's radius thus forming a singularity of infinite density. Penrose ignored he spherical symmetry assumption and introduced the concept of "trapped surface". A trapped surface is a two dimensional surface with a property that all light rays that falls on it orthogonally, converges with time. This is contradictory to the spherical surface assumption wherein the light rays diverge with time. In a black hole time and space switch roles, meaning the inward direction points to time coordinate which means we actually move to the origin of the black hole as time proceeds. This implies that we get sucked up into the intense gravitational pull and into its singularity as time proceeds. This mathematical observation is very poignant because this implies every matter that formed the black hole resides at this particular moment in time forever, i.e the singularity. This result of Roger Penrose is heralded as the first post-Einsteinian result on General theory of Gravity.

In 1990s Reinhard Genzel and Andrea Ghez along with their group of astronomers observed that something very strange was going on the dust covered centre of Sagittarius A. The observation was that there was, "an extremely heavy, invisible object that pulls on the jumble of stars, causing them to rush around at dizzying speeds". This turned out to be a super massive black hole, 4 million times that of our sun. This observational evidence lead to a Nobel Prize for Roger Penrose and Stephen Hawking's hypothesis on black holes. Unfortunately Nobel is not awarded posthumously and hence the esteemed scientist Prof. Stephen Hawking's immense contribution to black holes and the understanding of General theory of relativity and space time remains uncredited among the Nobel laureates, thus making it an eternal debt on the science community.

References:

https://www.google.com/url?

sa=t&source=web&rct=j&url=https://www.nobelprize.org/prizes/physics/2020/summary/&ved=2ahUKEwjGv6yLw9jvAhVY4nMBHYjqCPcQtwlwCHoECBUQAg&usg=AOvVaw1-nHKzzPw7ijB9ryQgfag8

https://www.google.com/url?

sa=t&source=web&rct=j&url=https://www.nobelprize.org/uploads/2020/10/advancedphysics prize2020.pdf&ved=2ahUKEwjq_cKaztjvAhXEXCsKHTppBgEQFjADegQIERAC&usg=AOvVaw 3L2T0xNCaHZmSyk7JNUdhi

GENETICS AND MANNERISMS

SUJATHA RAGHU

I often look at my two and half year old daughter and ponder about her mannerisms and that got me curious how genetics affect our behavior and that's how this article is born! In the west, there are labs conducting DNA test that can reveal the traits of the baby with respect to physical appearance (height, eye colour and hair colour), nutrition and taste (body mass index, likelihood of vitamin deficiencies and also sheds lights on the sleeping pattern!

Research shows that genes influence our social behavior. The common traits such as empathy, altruism, sense of equity, love and trust are influenced by the environment as well as our genes. So there is always a juggle between "nature versus nurture". Research in behavioral genetics shows that genetically influenced characteristics of children and of parents influences the way parents treat their children. So far, scientists have not been able to nail on a single gene responsible for a complicated behavior. Genes only influence our personality and they are not entirely responsible for a particular behavior. One gene may affect more than one behavior. Likewise, many genes together may affect a particular trait.

If you have observed, identical twins sharing the same environment behave differently due to the influence of their respective peer groups. The environment affects the expression of genes. In turn, genes affect our interaction with the social group. This phenomenon is termed as genotype-environment correlation.

The methods adapted to study the influence of genes and behavior is statistical tools that estimate the relative ratio between genetic and environmental influences. Geneticists use family, twin and adoption study designs.

Gene finding and molecular genetics are the tools used by researches to further broaden their scope of understanding the influence of genes on behavior. Statistical analysis such as correlation studies will help to pin down a specific behavior to one gene or a group of genes. Gene finding or gene prediction is a bioinformatics tool that help to dig out at the molecular level; thus establishing the pathways from behavior to genes.

The concept of nature versus nurture can be applied mindfully to bring up our kids. If we provide calm and a positive environment the children will bring exhibit the positive traits in them and thus become better human beings.

References:

https://www.nu.edu/resources/ask-an-expert-is-human-behavior-genetic-or-learned/https://web.stanford.edu/~wine/202/g-and-b.html https://prezi.com/vogsl7qcbxf1/genetics-mannerisms-how-do-we-get-them/

RESEARCH
PAPER,
SHORT
STORIES
&
ARTICLES

BEST WAY TOWARDS HEALTHY LIVING...

J P BHARATHI

Revathi's three-year-old Rohan is longing to have a coke every time he is thirsty. In the beginning Revathi was very glad that her little one has a liking for a particular taste. Slowly when she realised that in place of plain water, Rohan preferred a coke, she was worried. So every time he insists, Revathi had to give in. So is the case with the six-year-old Aditya and Monica's ten-year-old Manisha.

Sunanda a ninth grader from KV school states that coke or Pepsi is always stocked in the refrigerator. Whereas Divya of class four from KV school loves fresh fruit juice made at home. Children largely felt that ready to consume drinks are easily available at home and fresh juices aren't.

Children started preferring aerated drinks always for plain water. Even a much tastier and a homemade fresh fruit juice do not stand a substitute to these tastes. Is this because of the brand ambassadors of the advertisements or the taste itself? Today's parents have a tough time inculcating good tastes and eating habits to their children. Do we have to blame the easy foods available or the media and modern life styles adopted by most of us?

So the shift in the tastes of the children is due to the easy availability of the branded drinks. If mothers plan a little, fresh juices are not far away. They can be easily made and stocked in the fridge. By this we not only encourage healthy eating habits but also restrict our children from going for an aerated drink, whenever they are thirsty.

Shifting the tastes is tedious but it's worth it .Any way, try these:

Fresh lime juice made at home is more refreshing. So are watermelon, mosambi & grape juices. In place of aerated drinks children can be encouraged to eat fresh fruits.

Tender coconuts and sugar cane juice can be a better alternative.

Encourage children to drink buttermilk and lassies.

Still if you are forced to give in, remember to check the date of manufacture of the bottled / canned drink – they can prove to be hazardous after expiry dates.

It is nice to inculcate the habit of eating fresh fruits in place of juices. This not only is filling and healthy habit but also occupies the Childs free time.

The pandemic times have proved, cold beverages and stored preserved foods are always hazardous to health.

How about drinking lots of sweet matka water along with fresh juices at home?

Beat the heat this summer with health drinks.

CHAPTER 2 -- THE CHIMERA

CHITHRA

Sarah opened her eyes slowly and looked around the empty room. It had started to rain, soon she was completely wet. She exclaimed loudly "She is happy today". Everything around her is a reflection of her creator's thoughts. If it was unbearably hot, it meant that her creator is in extreme pain, the room bloomed with flowers if her creator spends time with a friend, with another friend the room gets filled with books, with parents the room gets divine and every day it is like a puzzle for her to solve.

Sarah liked to spend looking around for new objects. Sometimes they come to life for a few days. She felt a little ticklish today and she tried to guess the reason behind it. Some items vanished into thin air when she tried to touch. Some changed forms, some disappeared suddenly, some lasted forever, some smoked, some hid from her, some sang beautifully and some were scary and ugly.

She resisted the idea of looking in the mirror. It was glowing purple. Eventually she always yielded to the temptation. The mirror is the only way she could watch her creator.

She liked to look at her creator. Her creator was a female, at least that's what she was informed. Sometimes she tried to imitate her creator - the movement, the gestures, the way she pins her hair, or simply sit on the floor and crossed her legs. That's how she learned about all the people, her emotions and feelings.

She heard a soft voice whisper to her, Good morning Sarah!

It was the Guava tree. The tree extended the branch and playfully nudged her. The fragrance from the tree was sweet and comforted her. The tree existed as long as Sarah remembered and it had, guided her in the Chimera. It was more like the "Tree of Wisdom".

The tree had told her how she was born. Sarah listened to the story every day. She was created on a bright sunny day. The tree had initially thought that Sarah was just like any other object in the Chimera. "It was a miracle and when you opened your eyes and started talking, I knew you were very special! Now, you are as beautiful as ever Sarah!" The tree looked at her and hugged her with her bushy branch. Sarah hugged the tree back and said, what would I have done without you?"

She learned to be in sync with her creator and the tree seemed to know every time she had a question about the Chimera. She learned about her creator and how to handle the strange creatures that visited her sometimes. Some creatures spoke to her. She longed to have a friend that she could speak and share her stay here in the Chimera as long as it lasted.

Sarah was thankful that she had the tree. She always felt loved and protected around the tree. The tree always exclaimed, "You are the strongest Sarah!"

The mirror kept changing colours from canary yellow to cyan blue to crimson red. Sarah looked at her creator and longed to meet her.

The tree simply said "Today seems to be special". Do you want to visit her? Sarah looked at the tree questioningly. She knew going out of the Chimera is not that easy. She was also aware of the dangers that existed if she crosses the safe zone.

The tree uttered, "Look at her, she has the right to know you exist, I think it is time for you to meet her. I am aware that it is highly risky, but you can take precautions Sarah. I did not encourage you previously because you were too young. But now I suppose you are old enough to handle yourself, that is only if you want to!"

Sarah looked at the tree quizzically and remarked, "You guessed what's going on with me! Tell me what do I have to do?" A feather whizzed past her and vanished to thin air. Sarah ignored the object and the tree started giving instructions to her.

"You have to take an object from here that will tie you to the Chimera. It can be any object of your choice but remember, you should always have it with you. It will help you navigate your way back here. Time and space are perceived differently in your creator's world. You need to return back when you start feeling cold. Once you are frozen, the safe way will close permanently. You should be warm enough to find your way back. Though you have seen everything from here, the world out there is full of dangers and you are not to go beyond, to any new places you have not seen from here. If you want to leave a small object with your creator as a token of your existence, you can do so. You have to return to the Chimera at any cost. Do not get tempted to stay back there because it might lead to your creator's death as well as yours. Am sure you will be tempted to stay with your creator, which is very normal. The Chimera is all about not yielding to that temptation."

Sarah took in all the information and started walking towards the lake. The tree understood that Sarah needed time to think. Walking through the woods with wild flowers always rejuvenated her.

Sarah looked at her reflection. She had long black hair, expressive eyes and dimpled cheeks. Her features were soft and seem to blend in with her face. Her forehead wrinkled with thoughts. She had always wanted to meet her creator. She had so many questions and she wanted answers to them. Now that the moment presented itself, she was perplexed. She had seen other beings disappear without a trace and though the tree always claimed that she was unique and tough, she knew nothing existed permanently in the Chimera. Even the lake disappeared for a few days and reappeared. She decided to venture with all the precautions proposed by the tree.

The tree looked at her excitement and replied back, "I think it's a wonderful idea to give the feather and you look wonderful, after all she created you. I am sure she will like you a lot. By the way why do you want to carry a twig from me when you have so many to choose from?"

Sarah said, "Because, from the moment I came into existence, I have held on to your branches and the aroma in your leaves will be my knot tied back to the Chimera. I want to return back to you Guava. You are my safe haven". The tree glanced at her and saw her bright eyes twinkling and told her, "Can you hug your creator on my behalf and thank her for creating you? Take a ripe fruit from my tree. She will love it."

Sarah hugged the tree, pocketed the twig and the feather and was ready to leave. She waved goodbye and exclaimed "see you soon!"

AN IMAGINARY CONVERSATION..... CHILD FRIENDLY – PENCIL OR THE MOUSE??

HEMA RAVI

The pencil and the mouse had an argument.

Click! Click! The mouse began.....

The pencil retorted: you can merely click! I can doodle, write, bring thoughts into words.

Replied the mouse: a mere click brings the world on the screen. You have to think, organize, write, edit, rewrite, and finalize.

I offer a lot of benefits to writers.

With the push of a button, users can engage in a variety of learning experiences, record lectures and more.

The pencil chortled: Don't dismiss me as old-fashioned! Technology is yet to reproduce much that writing by hand can do.

Picking me up, grasping me and writing using me or my cousin the pen requires eye-hand coordination and fine motor skills, all of which are useful to perform self-care basics.

Again, you can tie your shoe-laces better, you can fill water into a narrow bottle easily, you can thread beads easily, you can make stuff with play dough; if you learn to handle me.... the possibilities are endless.

And remember, young children below three learn through sensorial experiences, they return to activities over and over again....they draw, colour, scribble, paint and write in cursive, all of which are developmental skills they are trying to master.

They do this all as they talk to peers, share their pencils and pens, revel in each other's work of art.

And when they sharpen pencils, their skills are honed.

The mouse interrupted: Ahem! Various technological devices help to do all of this and more.....

Pencil continued nonchalantly: Remember, Handwriting is still an integral part of the education system, examinations, class work and assignments are handwritten, and will remain a functional skill.

Writing legibly and expressively is an act of creativity.

While they were both arguing and counter arguing, in came a toddler. He lifted the pencil and scribbled on the note pad that was left on the table. With a click of the mouse, he opened a virtual page that said STORY TIME!

So, friends, the Gen Alpha child is at home with a pencil and a mouse.

CIENCE SHORE | PAGE 22

LIFE IS LIKE A GAME OF CHESS

JELLIE N.WYCKELSMA

We all play life's game, according to the rules we have been taught, by our parents, our teachers, or by our religious leaders. When we are young, we accept these rules blindly. In our teens we rebel, wanting to change the rules to suit us. When reaching adulthood, we analyse the original rules and find that with some adjustments they are quite acceptable again in our day and age, realising that our ancestors knew all too well how to play life's game.

We recognise the correlation between our daily game and a game of chess. We see that the rulers of a country, play roles like the Queen and the King do. We experience the value of the Bishops, and the Rooks. We learn never to underestimate the invaluable role of the Pawns; the common men, soldiers and other fighters, when like in chess, two sides of the game are engaged in battle.

Every move we make during our lives, is carefully calculated, as win or lose is at stake. Our brain is actively involved and often our emotions are put to the side. We all have the instinctive drive to win all the battles we face. When we are placed in the position of checkmate, like in a game of chess, we also have to learn to accept a loss.

It takes courage to acknowledge defeat. It is never a sign of weakness of character, on the contrary, it shows its strength.

SCIENCE SHORE | PAGE 2

"ENGLISH ERRORS OF INDIAN STUDENTS" TALK SERIES – HEMA RAVI

REVIEW BY MADHUMATHI. H

"If Language is a Flower, then without Grammar it will not smell."
— Purushottam Muley

Hema Ravi Ma'm, is an IELTS and Communicative English Trainer besides a poet, reviewer, critic and editor, and she is in the teaching profession for over two decades.

Her Talk series on Science Shore magazine themed, "English errors of Indian students", is an interesting and informative series that is helpful not only for students, but for adults as well. Those seemingly small mistakes that are overlooked, some wrong usage of words, and terms in communication, are thoughtfully chosen, explained in a simple and crystal clear manner.

"I cannot able to cope up. Own brother, Cousin sister...", are few instances from the series, talking about the wrong usage of words in regular communication. Each one is interestingly explained 'Why' it is wrong, 'what' is the correct usage, and about the contextual relevance.

The tone, modulation, gentle flow in talking, and clarity in voice in her videos, make the learning experience more fulfilling. This talk series is a boon for anyone who wants to learn, improve, fine-tune one's communication skills. (The only thing I miss is her heartfelt smile that instantly lifts our spirits; It's an audio-visual with just her picture, and voice. I hope she surprises us in some of her future episodes. Am already curious.)

Hema Ravi Ma'm has also published "Everyday English" (self Tutor for Students) that introduces grammar in an easily comprehensible manner, for day to day usage in communication . To quote Hema Ma'm from her book, "Everyday English also targeted towards learners who have not had English as the medium of instruction at the school level and find it challenging to cope with specialized subjects at the university level...", which is highly beneficial for a larger group of students, in boosting their confidence.

The word 'Meticulous' aptly defines Hema Ma'm. So much passion, dedication, and sincerity go into whatever she takes up. I must say, her students are fortunate to have a mentor like her who is not only scholarly, but also a kind and compassionate soul, who supports, guides, and encourages people to spread their wings, pursuing their passion. I have read the feedback from several of her students who attended Hema Ma'm's IELTS coaching, and they speak volumes of the wonderful mentor in her. I would humbly recommend her talk series on Science Shore as a 'must watch', for enthusiastic learners.

It's an honour to share my humble thoughts on Hema Ma'm's talk series. I take this opportunity to express my deepest gratitude to her, for being one of the few kind souls who lovingly supported, motivated, and guided me in my poetry journey.

Knowledge is power. May the world be blessed with more inspiring teachers, mentors like Hema Mam, to strengthen young minds with knowledge, lighting lamps in the lives of many generations.

JOB HOPPING

T. S. MANOHAR

When my dad received the "long service memento" at the function brought up to honour employees who had served the organisation for twenty five years, he was elated with joy. Pride swelled up his chest or so it seemed. Even a couple of years back, he proclaimed "I have achieved so much for my employer and still way to go till my retirement". He was transferred to a few places on promotions and did his bit wherever and left his foot print whatever!

My uncle employed with the Reserve Bank of India worked in the same building for 38 years! From inception to retirement, monotonous routine did not bother him. Same office, same colleagues, same faces and same work for so long, eh! He was proud of the grand farewell accorded to him. "I am always intent to be content and enjoy my work at office", was his idle boast. He never aspired for promotions lest he would be transferred! Risk averse and change resistant he completed his long stint at the same edifice for just less than four decades. However, he pursued his other passions vigorously and derived satisfaction. In short, office was an extension of home with families getting together on every given occasion.

These are bygone days. Not anymore. No one sticks, in the same company for more than two years. None stagnates in the same position for long.

"You see, I got a good package from that MNC and hence I migrated", is the oft quoted statement. Precisely why, the loyalty to the organisation or affinity to colleagues is a rarity. You pay, I work; you elevate, I stay back; you stifle me, I quit, seems to be the modern mantra.

If attritions are increasing, layoffs are not uncommon. When mergers and acquisitions take place surplus staffs are shown the door mercilessly.

The creeping insecurity and palpable tension is apparent in every industry of late. This in turn is undermining the attitude of the staff. When the 'Damocles sword' is always dangling above the head, faithful allegiance to the organisation takes a back seat. Across the globe they issue the "pink" slip on Monday mornings than Friday evenings to beat the suicidal tendencies during the weekends!

"In the present market conditions it has become uneconomical to carry on with the workforce of this magnitude. Hence we are constrained to downsize and reduce operations. In the said circumstances your services stand terminated today, by the close of working hours" is the stern and impassioned statement to terminate employment. This comes as a bolt from the blue.

Dr. Abdul Kalam rightly said, "Love your job and not your company, because you may not know when your company stops loving you".

Increasingly, people are becoming mammon worshippers with little or no job satisfaction. Precisely why, job hopping has become rampant.

"The negative portrayal of the present day work culture is unacceptable. I would rather contest it" interjected Avanthi, who had switched jobs thrice in her career spanning just eight years.

"You see, that is the order of the day. Gone are the times when technology was evolving slowly. Never ever compare the mindset of Gen Y and the skill set of the millennium. Nowadays, one has to continuously upgrade and update his/her skill set to stay relevant and employable. Job market is like the conveyor belt. You have to keep 'spot jogging' even to stay at the same place!Besides, I personally believe in chasing learning opportunities and challenges all the time. Starting as a systems engineer to begin with, I moved on to become a team lead and further as a delivery manager. Presently, I am into client servicing all along gaining experience in different spheres.I don't want to languish cocooned in my comfort zone", she thunders.

Giving a serious thought over that, I got immediately connected to Darwin's theory," the survival of the fittest".

It is not the strongest of the species or the most intelligent that survives. It is the one that is most adaptable to change. - Charles Darwin

Looking as it were, I am compelled to conclude that "it is only the rolling stone that gathers moss".

SCIENCE SHORE | PAGE 2

ROLE OF THEATRE IN DEVELOPING THE ART OF OBSERVING, THINKING, LISTENING, AND LEARNING

RESEARCH PAPER - PART 2

ORBINDU GANGA

In this edition, we will understand the role of theatre in developing the art of observing, thinking, listening and learning in children.

Education should be a way of life where a child will be able to think with a clear thought to take decisions without any influence. Art is a beautiful medium that can create beautiful creations and give perspectives. Theatre is one such medium that can help the society to think independently. A medium of exploring new ideas, sharing new perspectives and expressing the views without any fear.

Theatre has been a pillar in showing a beautiful learning congregation. It vouches for exploring self on awareness and consciousness. A platform where we can understand the dynamics of conversations that are very healthy for looking at a larger perspective. Theatre allows the development of critical thinking and makes conscious decisions. We are encouraged to use the form and the voice equally. We are encouraged and inspired to say 'no' for what we don't believe and stand for our voice. [4]

Children in a growing phase are excited to learn new things especially to hear words. During enacting the play, children encounter many words. The sensitivity of the words is defined by its sound, pronunciation, diction, and rhythms. Children can understand the meter of the word and function of the words as they grow. The logical reasoning of the scenes and the consequences of the scenes are understood by the children. Understanding the conversations and reacting to the action is slowly realized by the children. They can observe the importance of body language. They also keenly watching the gestures and able respond with expressions. The world of sound and silence is slowly felt by them.

The child can perceive the meaning and the importance of pitches in the sound, able to gaze the pitch sequence for communication. [5] Slowly the journey of observing the inner and outer space happens within the child. The thoughtful understanding of the larger space within and outside is drawn by the child and can understand the importance of it.

When a child can learn from a play, the whole experience shall remain edged in the mind forever. An experience becomes part of critical thinking skills. Such experiences can be a precursor to overall development in a child. A child can experience real-life scenarios at a very early age. The child can create an imaginary world and can express it before the audience. This expressiveness can be of immense help as the child grows up to discover the world and strengthen his social circle. A child's journey of accomplishment shall start once he is drawn into the world of creativity and imagination. He will also be able to see the expressions in the abstract space given his flow of thoughts. Such a journey with imagination can lead to excellent academics and motivation for his internal development. [6]

Children can manifest and discover hidden talents. They can understand and appreciate the talent within. Children can appreciate the talent of the other as well and being part of their happiness. A child being naturally dramatic can easily adjust to the experience of a play and being naïve can make the child develop the thinking skills. Being with the larger group, the expressiveness can booster the confidence for making a big jump from being in a shell.

Children who are active in performing arts are active and perform well in academics. The whole thought process of enacting or watching a live play can make them think and make them more active. They have great fun and carry a smile enjoying their life than those who are less interested in performing arts. In a play when a child forgets a line, another child will take charge of the play helping the play. This spontaneous gesture keeps them learn intuitively. Such traits can be of real help when they face any situation in life but they have the conscience to learn quickly, to be able to adapt to the situation which they never faced. Such spontaneous gestures become intuitive qualities which are captured by other children. Even the audience appreciates such gestures and they use it in their life with ease.

When children are enacting the roles in the play, they unknowingly enter into different situations where they are not familiar with. They use their intuition without any fear and overcome such situations. This helps a child to cope up with any scenario in life. The child is prepared for anything in life. Enacting a role is a challenge for anyone but a child discovers a new world while playing a new character. There is a lot of happiness within the child to express someone and to be someone.

A child's world is surrounded by parents, siblings, teachers, and relatives. When children experience a large audience while playing a character, they would feel a little weird for the first time. Some may even fumble with dialogues or cry incessantly. But they learn quickly as the teachers and parents give them the support and encouragement to get involved in plays. As they do more plays, they start to realize the larger world around them and they start to relish the applause. The characters they perform demands many expressions which will be naïve to them. With many practices, they realize the discovery of new emotions. Empathy gets imbued into their system. They start to realize the importance of their thoughts and how they can influence society as they grow.

Children while enacting the play learn the importance of teamwork, emotions, and reality. They assimilate such thoughts much faster in the system than those who aren't involved in performing arts. The thought process is much clearer in how the children see the world. Children are slowly able to know the real world and understand the nuances of life as they grow. During a performance, a child becomes part of a larger system to achieve the goal. Working relentlessly to better self can be a booster to transform the practice into reality. The performance to better the self becomes the reward which needs the child's attention to understand. Performance shall make one believe in self to do better next time. [7]

Theatre is a platform where children can come out of their comfort zone and speak in front of a large audience. There is a lot of practice being put in understanding the content and speaking the dialogues with lucidity. Many workshops are created to make children comfortable in interacting in groups. This helps the children to sharpen their communication skills and use them in the desired way. A creative field such as theatre also involves solving problems in the scripts, dialogues, editing and usage of the prop. Problem-solving is an important lesson learned from theatre.

One of the important more defining aspects of learning is when we try to excel the self within. Each practice session can bring in new initiations and corrections. Even after every act one can make introspection on the learning and improvement. Such is the uniqueness in the creative field that every creation can make one think to one better the next time. Striving for excellence becomes part of the culture within. The urge to excel one's character makes one learn on the commitment one gives to the play. It inspires the fellow performers to excel in the characters in the play. The audience seeing the play can get inspired and take away a lot of positives from the play.

Interacting with theatre actors while doing practice sessions can be of immense value to children in doing a character in a play. Knowing different people and interacting with them can make one understand the different shades of a character and help in exploring many characters in the future. Understanding different shades of character can make better interactions. Such interactions can give good healthy conversation which can lead to teamwork. A good association of relationships is built among fellow performers.

When the character is sketched and given to the performer to performs, it becomes the prerogative of the performers to enact it the way they want. They can independently add shades to the character to bring them alive. Scheduling the practice sessions and mastering the sessions before the final play is important. Time management plays an important role in defining sessions, workshops, and play. When there are glitches in the whole process, some take this as an opportunity and challenge the whole situation to come good. When the practice sessions are not going as per schedule and absentees in the session, it carters some to accept the challenge and solve the problem with ease. They become proactive in handling such situations.

Having the discipline within and respecting others even if there is a difference of opinion makes one more respectful than others. Accepting others' perspectives in the sessions and workshops can be of immense help in earning respect and being a role model for others. Being on time on the schedules is one of the important aspects which can make one different from the crowd. Delayed sessions and workshops can make others uncomfortable. This may lead to other tending to procrastinate the sessions and the play getting delayed.

While watching a play a person will be able to go through the process of observation, listening, absorbing and adsorbing. As one watches more plays, thinking skill improves. The ability to adsorb the necessary shall make one a quick learner from others who remain in a shell. Exploring new ideas should be the way to look forward. With a new approach, one can derive new content. The content can be of a precursor to accept the new challenges and bring about the changes. These changes might be difficult to accept in the beginning. But it can become a way to look forward with a smile for the future.

Some of the plays might get mixed reviews though one might consider the idea to be fresh. Some may not accept it because of the content. Failures are the stepping stones for success. Take any failure as an opportunity to challenge the norm. This can lead to greater heights. With the exploration of new ideas and seeing the mistakes committed in the play, one will be able to define a new goal-centred approach which will lead one to be more dedicated and concentrated towards the work. They will able to accept the responsibilities with open hands, boosting the self-confidence to sharpen the leadership skills.

Theatre is a medium to express our expressions especially to those who find it hard to express their views. Theatre can be a platform where they can come out of the shell and express verbally and their movements. Believing self and knowing the true potential of the self can be achieved by the sessions. Seeing different emotions in theatre play can make one feel closely associated with self. Comedies can make one's immune system stronger. Such plays can be a stress buster for many. Children who have learning disabilities will be benefitted from the sessions. This can also help them to see the world to express and help in their academics.

Watching live theatre plays to make one more associate with oneself. They are much better at understanding people and empathize with those who are broken. There are some emotional benefits which are never shown or made to be felt. The intuitiveness exists within to comprehend and empathize with each other. The feelings were within them and not shown the world outside. [8]

Literary drama can enhance literary knowledge. There will be many expressions which can create a great discovery for students. Some of them will be finely detailed that each one can give a sense of exploration. They can provide nuances of life. With some vocabulary adding to our diction. It can provide you to read the emotional and behavioural aspects of the human. Some of the characters can teach great tolerance for life. It also teaches empathy for fellow beings and thought on humanity.

Drama is considered to be the most efficient method to help in personality development to develop and sharpen the soft skills. The importance of such an educational form of the system can make a child and adult understand the emotional side of the human being. Many skills are been identified and discovered during this process. Rather than exploring and nurturing the creativity within, it explores the human behavioural aspect of individuals.

Children can rehearse the characters which they have not experienced naturally. They can explore and know the real problems which will be helpful in the future. It becomes a platform to explore, discover, encourage and develop creativity. They can understand the importance of interactions and able to interact with like-minded people. This helps them to form a circle of good friends and healthy conversations.

The drama has an important role to play in education since it provides the students with the skills of reading comprehension which can help the student academics but also understanding power in the classroom. [9] Theatre brings in a lot of humour and reduces stress. Social interaction can create self-belief and trust among the commune. Depiction of many cultures and highlighting the social issues can bring in social awareness. The value of art and theatre can be better understood and appreciated while participating and watching the plays in the theatre. This could help in appreciating the aesthetic senses.

Through emotional discovery and social interaction, one can develop the skills and competencies which aims at the personal and interpersonal reflection in an individual. Such a connection is deep within and other individuals which are better known as social-emotional learning. [10] Watching plays can cater to emotional and social intelligence. Maintaining self-discipline is an important trait to be developed within. Having the consciousness and conscience to act according to the situations can be augured by watching plays.

Theatre is an amulet when it is properly shined can change the faith of one's life. Theatre is a treasure where one needs to get the thoughts polished to discover one's hidden talent and improvise on it. This can help in academics and expressing the self within. Theatre conveys the things in a very subtle manner that it can be applied in life with ease to connect with people and to mend relationships. Theatre teaches one of the finer aspects of life where the voice decibels is of less importance than the message conveyed to the person. The use of body language can convey a lot of things. This is very helpful in knowing the mood and character of a person than in any training program since the mind can subconsciously observe and absorb the nuances. Theatre is a coming together of different people from diverse areas of interest where they leave their difference and become part of a beautiful journey.

Conclusion

A learning source to make an individual subconsciously observe, listen, think and learn shall make the most efficacious medium for education and self-development. When such a source is available for all, it is a goldmine for the future. Art has always been a driving force to make an individual know the hidden potential within. Theatre is one such platform where a child can observe different human characters, shades, behaviour, and situations that he would have never seen before.

Learning is a daily activity that continues forever. Being a student, a child shall learn live life experiences watching a play in the theatre. Theatre is a precursor that sows a seed of life experiences in a child. The art of observing, listening and thinking is subconsciously sowed into a child when he is playing a character or watching a play in the theatre. Such is the impact that a theatre can transform into a child. Imagine if theatre is added in all the school curriculum, the impact it will back in the future. We will be having very conscientious, talented and responsible individuals for the future. I do hope theatres are incorporated early in the school curriculum to make thoughtful and responsible citizens who shall immensely contribute to the well-being of the society.

References:

Theatre Types and forms of theatres, Theatre Project, page 3.

 $http://theat reprojects.com/files/pdf/Resources_IdeasInfo_types and forms of the atre.pdf$

Damen, 2012, Section 1: The origins of western theatre, Classical Drama and Society.

http://www.usu.edu/markdamen/ClasDram/chapters/011intro.htm

Ancient Greek History, History of Theatres.

http://images.scholastic.co.uk/assets/a/a6/a5/je1208a2i-inp-121895.pdf

Solchaba, Berta María Soní, Drama as a way to train critical thinking, International Association of Theatre for Children and Young People.

https://www.assitej-international.org/en/2016/09/drama-as-a-way-to-train-critical-thinking/Multiple Intelligence, Relate Thinking skills to the arts, page 7.

https://www.nj.gov/education/archive/frameworks/arts/chap1.pdf

Drama Promotes Critical Thinking (21 June 2016), Professional Development.

https://naaweb.org/professional-development/item/528-drama-promotes-critical-thinking-and-so-much-more

Their Self-Esteem Can Soar, How the Performing Arts Benefits Kids.

https://www.scholastic.com/parents/family-life/parent-child/how-performing-arts-benefit-kids.html

Savacool, Julia, How can watching theatre benefit the mind? Erickson Living.

https://www.ericksonliving.com/articles/2014/12/how-can-watching-theater-benefit-mind Other benefits of theatre education (July 31, 2018), what are the benefits of theatre education?

http://www.theatredumississippi.org/2018/07/benefits-of-theatre-education/

Thomas, Corinne (2017), Social and Emotional Theatre, Theatre and Liberation. https://corinnetthomas.wixsite.com/theatreandliberation/post/social-and-emotional-theatre

The views expressed in the article are those of the author.

NATURE THRILLS...

PADMAPRIYA KARTHIK

Billions of years ago the Universe created The Solar system and appointed Sun as head. The sun decided to grant everyone a boon.

When it was Earth's turn, she asked for a precious boon, the boon to create life,to support its existence and be the mother of many children.

The Sun agreed and granted her the precious boon. Earth was so excited and created rocky lofty mountains, salty seas and oceans, fresh crystal clear rivers, tall thick sturdy leafy trees, cheerful chirping colourful birds, rich fertile soil and parade of vibrant animals.

The Sun was smiling brightly in the clear blue sky enjoying the creativity of Earth. All her children were a feast to Sun's eyes and kept watching them all day long.

Her children, though diverse in nature lived happily helping each other. Rivers gurgled, trees rustled, birds chirped ...They had so much fun.

The Earth began working all day. She spinned on her axis to take care of her children. The Sun was feeling very lonely. He had no friends. So, he decided to be friend the children of Earth.

He stretched his golden fingers in all directions, embraced them providing the necessary warmth. Still he felt void.

So he asked the mountains, "Can you come up and stay with me in the sky?

The mountain was startled." I am so huge and heavy. Your warm rays cannot lift me. I am sorry."

The Sun went to the leafy trees and asked,"Can you come up and stay with me?"

The trees wearing a sad look said, "I am rooted to the spot. I can grow tall but I can't stay without my twin brother, the rich fertile soil. I feel so sorry for you."

The Sun without losing hope approached seas and Oceans. The sea said, "I am too large, you cannot carry me all at once. Maybe you can carry us in drops."

Enthusiastic sun shone brightly on the seas and oceans. The Sun's rays like an escalator carried the water drops in the form of water vapour to the placid blue sky. The drops were feeling excited to travel up.

As the water vapour traveled higher and higher, they became cool. They loved being with the cold air. Millions of water droplets formed white fluffy clouds in various shapes. It decorated the sky like cotton balls on the cotton plant.

The Sun was extremely happy as he could play hide and seek with clouds. Days passed, the water drops started to feel homesick and wanted to return and meet their family.

They expressed their sorrow to the wind. The wind agreed to help the heavy clouds.

On the chariot of wind, the heavy clouds gently sailed until they met their brother rocky mountains. They hugged and shed tears in excitement. Thus they dropped down as rain.

Everyone on Earth rejoiced at their arrival. The soil sponges in countless drops and weaves a blanket of moist. Leaves in plants and trees welcome them with energized breath. Rivers gush in joy like a child gifted with a favorite new toy.

The water drops that returned from their trip excitedly shared their rich experience. So, the rest of the water droplets decided to travel up in batches and this continues till date.

Thus, the repeated change of water into water vapour and then back to water is called Water Cycle.

Nature always thrills us in its unique way...!!!

WHAT ARE RELATIONSHIPS?

PARVATHI

An increasing number of people are using dating apps to find their better halves. Does this trend help people socialize or does more harm?

Relationships are when two pure hearts are together on one physical body with dedication, commitment, loyalty, responsibility etc. But unfortunately relationships today have taken a drastic turn and they are no longer what they used to be.

Today's relationships are not about dedication, commitment, loyalty and responsibility etc. They are only about good looks and sweet talks. With the rapid advancement of technology relationships today are easily available with a click of a button via dating apps.

It is said that today an increasing number of people are on dating sites to find their better halves. Does this trend help socialize or does more harm?

Before we go ahead let me ask you what are dating apps?

Dating apps like tinder, okcupid are apps where good looking, sweet talking relationships are easy to find. Youngsters today get carried away by the looks and talks get quickly hooked to the apps failing to understand that relationships found on dating apps are mostly casual.

Dating apps are trap set for youngsters to ruin their life for a lifetime. People upon being hooked on dating sites are sure to be ruined physically, financially and mentally which can never be forgiven or forgotten.

I would hereby like to conclude that relationships are not built on two hours of chatting, it takes years to build and nurture a relationship and seconds to break.

Relationships can very well survive without sweet talks, looks etc. but can never survive without honesty, dedication, integrity. Never get carried away by looks and talks get carried away by dedication and commitment.

Never lose diamonds offline while counting stones online.

Thus I conclude by stating that dating sites do not bring soul mates but it is our patience to wait for the right person that brings soul mates and better halves closer.

The best things happen to those who wait. Soul mates / better halves are angels/messengers sent by God not on what we want but on what we need. Be patient, calm and positive. You are sure to meet your partner for eternity.

DREAM – THE STRONGEST VEHICLE OF CHANGE

SETALURI PADMAVATHI

Dreams are chains of images, ideas, emotions and feelings that occur in mind during certain stages of life. Scientists believe birds, reptiles and others mammals also dream. People may spend two hours of their sleep in dreaming, but may not remember all their dreams. In fact, dreams last for a short period of time. Dreams can have different natures, such as emotional, exciting, inspiring, frightening or magical. Dreams are also known as deepest desires. People strongly believe that memories formed throughout the day also play a role in dreaming.

What is the difference between an ambition and a dream?

Dreams are what you want to happen, but know that they are not going to happen in real life. For example, everyone wants to win the lottery.

Ambition is we want to do something and have the motivation to do it. We develop a desire to achieve it from childhood with great enthusiasm and a hope. An ambitious person may try to achieve his goal in a systematic way, if he is committed, hardworking and interested in it.

"A dream doesn't become reality through magic; it takes sweat, determination and hard work."

It is a wonderful thing to have a dream. To transform a dream into a reachable goal, one must understand, follow and feel it clearly. We should ask ourselves how it fits, how we will work with it and the result of it. There are more paths to our achievable goal, but we must choose the one that we will be able to achieve and work with.

In my opinion, a person who wants to achieve his goal gets inspired and motivated by his relatives or friends. Michael Stone, who was a blind pole vaulter heard numerous stories based on flying from his mother. His father advised him to work hard to achieve something. He got inspiration from his parents, practised it regularly and worked hard in order to achieve his goal.

"All human beings are dream beings. Dream ties all human beings together." A society with ambitious and talented people will prosper in a wonderful manner. As we are social animals, people who dream and make them true strive hard for a developed society.

A dream can change our life gradually in many ways. It can change our attitude, behaviour, life style and lead us to have prosperity gradually. It depends on the way we work for it. "Do all you can to make your dreams come true."

TRUE EDUCATION AND SUCCESS

THANKAM NAIR

Guru Sishya relationship is one of the most divine forms of connection and one's Guru is greater than God himself because we have not seen God, but have seen our Guru.

GU means darkness or ignorance and RU means destroyer, thus Guru is one who dispels darkness. True Guru has the inner strength and greatness, and there is a strong link between teacher and student, like a wire that connects the powerhouse with the bulb that burns and gives light.

The purpose of education is to give the student an understanding of the world he/she lives in, to encourage him to work towards solving many problems of the society. Vidya, for the sake of Vidya is the highest ideal for the teachers as well as for the taught. To the whole world, the gift of Bharath is our philosophy and spirituality. In the process of India's evolution, we have never been a conquering state, and that is the most important reason for the greatness of our country.

All power is within us, stand up and express the divinity within us. A man should not be judged by the nature of his duties, but by the manner he does them. Up to the age of5,a child should be given, a great deal of love.. From 5 to 15,they should be brought up with little more discipline and sternness, as this is the stage, the foundation of life is laid.

But nowadays, we see many parents become a slave of children, and they shower them with material things, comforts as a token of love, not love itself. Children in the age group of 5 to 15 should be brought up very carefully, otherwise parents and child both may have to suffer later in life. After 15 they should be given as much love as possible, treat them like a friend, otherwise they may go astray. Mistakes should be pointed out and corrected, whenever need arises.

Education is man-making, life building, character forming, and love is the foundation of all education. The teacher is a guide, giving the right kind of learning experiences and environment to the children. He also has to provide forum to discuss their views freely.

Character building

Truth, cleanliness, industriousness, equality, cooperation, love and compassion and attitude development are all very important ingredients in character building.

Openness in thought and action should be encouraged for the development of personality. New ideas are to be developed through discussions in the classroom.

Teachers brain storming sessions help children to develop healthy attitude that stimulates free thinking and participation.

Appreciate all answers whether they are right or wrong. Expecting and insisting on correct answers, may not be always desirable. Allow them to think, and explore new horizons of knowledge.

Positive outlook helps one to be sincere, caring, confident, patient and humble. Also they will set high ideals for themselves and for others. We should look at the sunny side of everything.

An educated person or Guru is he, who can face any situation with fortitude and courage. He will have an ability to distinguish good from bad. Ignorance leads one to misery, tragedy, poverty and sickness. Success is not measured by our position in society, but by our ability to overcome obstacles in life. Character is the sum total of a person's beliefs, values, and personality and that is reflected in our behavior and actions. Noble character itself is Success. Discipline is firmness enforced with love and understanding. Without discipline, we cannot expect success. Hardwork, sincerity, discipline, planning--- all combined together bring success.

Nothing is impossible.... BELIEVE it!

TRAVELOGUE OUR EUROPEAN TOUR-2010

THANKAM NAIR

Calicut-Dubai-London was the route selected and we had a one day sightseeing tour in London which included wax museum, London's eye, aquarium and palaces. London has a royal look of good architecture, uniform buildings, gardens and flowers, clear directions everywhere, where one can go alone to see places. Tourist buses are very frequent, so taken for different destinations and tube train for easy travel. People are helpful and communication was easy for us unlike France or Italy or Germany, as they speak their own language and not English.

Dove port to Calais port, we travelled in a ferry, a small ship which transports buses and cars on the first and second floor, and shopping centers and food court on the 4th floor. From Calais port to Netherlands the tourist coach passes through France and Belgium.

Amsterdam is a city of scenic beauty, famous for Tulip flowers which bloom in April. Diamonds are also so popular here. This city is also known as Venice of North Europe. People here are rich and the botanical garden is so famous. A film museum here is a centre of attraction for film makers. We stayed in hotel that day.

Our next destination was Germany. Scenic drive along the shores of Rhine River was a thrilling experience. Sightseeing trip was so exciting; Rhine river connects trade with Switzerland, France, Germany, Belgium and Dutch.

In the afternoon, we started our journey to Austria. We saw Black forest, green beautiful meadows, tunnels, mountains, castles, churches on route. We stayed there also in a comfortable luxurious hotel.

Next morning, as usual started journey at 7 am, tour to Italy via Tyrolean Alps to the unique floating city of Venice - Sinking city. There are 117 islands, 155 bridges and music so popular. A boat ride visit to the glass blowing factory worth to mention. Luxurious shops with unique gift items worth to see.

Another interesting drive southward cutting across PO Delta through the gentle Umbrian hills to Assisi, where St. Francis was born. Visited the famous Basilica with its beautiful frescos and then headed for Rome.

A city steeped in history and exciting Eternal city of Rome ... a wonder. It was a hectic day, visited St. Peters square, followed by a visit to the Roman Forum and the mighty Colosseum. I remembered the history of Rome, its prosperity in the olden days. Colosseum is a real wonder. It is ruined but repair work was going on.

Our tour to Vatican also materialized great building architecture, pillars, and statues in hundreds, all worth to see.

To Florence it was an easy drive, beautiful, peaceful. Pizza Santa Croce, Piazza signora, Polasso Vachio, courtyard, cathedrals, and gate of Para are all so enchanting. Overnight we stayed in Monte Cartini. Leaning Tower of Pisa looked so radiant in the morning sun. People come here mainly to take photos. Everything in the shops has a leaning shape, leaning glass and leaning bags.

We started our journey Northwards through Tuscan hills across the river Po, Lombardy plains, crossing to Switzerland. We had a wonderful stopover in the lovely lakeside Lugano. It was a feast for the eyes. We passed through Europes' most splendid Alpine scenery through St. Gotthrad tunnel to Lake Lucerne for an overnight stay. Lucerne is one of the finest cities of Switzerland, snow clapped Alps, surrounded by lakes, clean and clear mountain waters, city walls, covered wooden bridge with beautiful natural plants full of flowers hanging fully covering the side of the bridge, Lion monument, and cobble

Stone Street. Our next stop was Interlaken, a soothing effect for our eyes. We visited the hill top village of Gruyere overlooking Lake Leman, cheese is produced here in bulk. Our next destination was France, Paris a city of energy, vibrancy, and youthfulness, city of Lights that never sleeps. On the route Bergundian Town is famous for Wine production.

Paris is a city of Fashions, art, paintings, museums and delicious food. A sightseeing tour with a local guide along with our European tour Director Ms. Lris, a very smart, helpful lady throughout our tour and the driver, Mr. Antonio was very helpful and decent. We visited Sarbonne, Opera, Madeleine, Eiffel tower, Louvre. Paris is a very neat city, beautiful uniform buildings, with excellent architecture, 76 metro stations, city surrounded by water, and so we had a boat ride to see important buildings. Up to the second floor of Eiffel tower, we used lift but coming down, used steps of more than 780, that caused little bit of pain next morning. Hundreds of statues on buildings and otherwise churches, memorials, it was superb.

For ladies there is a special shopping centre where rich business and film stars do shopping, Louis Vuitton. Very costly indeed. For Indians, Europe seems to be very costly, even a bottle of water costs around 70rupees when we convert. Sandwich, pizza, hot dog, variety of tasty breads, salads in abundance,, but when we see price and convert to Indian rupees, we hesitate to buy. Nearly Rs.700 for ordinary sandwich.

Our Bharath is very rich with her scenic beauty, lakes, rivers, seas, hills, mountains, historical places with wonderful architecture and art, hundreds of palaces, great temples... What we lack is hygiene and proper maintenance. We seldom follow rules and regulations and with too much freedom we exploit. We need leaders with vision and practical minded to make our country a leader in all fields.

HIRAETH

VISHAKA DEVI

Sitting in the taxi, she fantasized all that she would do once she reached her cosy nest: picking up her goldfish from Mrs Drew; binge-watching as much of Stranger Things as she could; going to her Mom's and having meatloaf; going for a quick grocery run to pick up her favourite tub of tiramisu ice-cream; video chatting with her friends; changing into pj's and catching up on some z's. Dabria could not wait to get home. She jerked forward when the cab came to a sudden halt and her eyes sparkled when her house came into view. She lived in a Tudor-style home surrounded by orange foliage shrubs.

Although it was based on a Viking-styled cottage, it was very minimalistic and homely. Then her eyes fell on her white-fluffy bed, visible through the six-paned window. The idea of ditching all her plans and crashing into bed crossed her mind and she complied. Dabria stepped out of the bumblebee-cab in her crisp navy-blue uniform. Life as a stewardess was not what it was cracked up to be. The sleep deprivation, the mundane meals and the home-sickness overwhelmed her — this would be her well-deserved break.

She stood there in relief, right before her home, after a six-hour-long haul on Boeing 747 from Alaska to Los Angeles. It was her first time home after five weeks of back-to-back flights. The thought of getting into her warm bed back home eased her mind. Her mouth salivated at the vision of making a home-cooked steak, motivating her to speedily approach her home. Dabria strode along the cobbled pathway, on her way to the rustic patio. With a huge smile plastered to her face, she immersed her arms elbow-deep into the enormous bag slinging from her shoulders. And out she pulled the key which glistened with glee for it would be united with its partner soon.

Dabria stepped onto the porch, held up the key and charily thrust it into the keyhole. But something was not right. When she tried to open the door, she was surprised that the key didn't fit.

Flabbergasted by the unforeseen happening, Dabria shook her head as she second-guessed herself and turned around in a huff to sift through her bag more. And she almost tripped over a fresh bundle of fine print which lay on the patio. Hunching over, she was surprised to see her reflection on the newspaper. A proud smile crept on her face to see her first news feature and she began to read it aloud. But when she did so, dread took over.

"Friends and family hold an air disaster memorial, honouring the life of a local stewardess on her death anniversary.

POETRY



THE RIGHT ONE

BHAGYASHREE MISHRA

Healing your aching heart
Deciphering your soul's soliloquy
Making you feel whole once more
The right one brings out your brightest hues.

Amid defeaning silence and calm chaos Filling your empty spaces with liveliness At moments of miseries and sorrows The right one enables you to sail through it all.

Storms rush in to topple the boat of your kinship An utopian world seems to vanish into the thin air The castle of your dreams seem to crumble into pieces Come what may, the right one always stays.

CEPHALOPOD [FOOT IN THE HEAD --OR MOUTH]

GITA BHARATH

The octopus is wonderful, a deep sea marvel

He uses eco-friendly jets of water to travel quickly around his world'

To pump blood to his gills he has two hearts

The third pumps blood to other body parts

So does he love thrice as much?

His blood is blue because it contains copper

Not like other animals who think it's proper

For their red blood to contain iron!

Their bodies are soft, but their beaks are tough

And when the female octopus hasn't eaten enough

She preys on her mate!

To control their eight arms, they have eight brains

And a bigger controlling one that contains Thought and intelligence.

Three hundred species of octopus in the sea

Without internecine wars, coexist contentedly

Unlike evolved men.

With so many hearts and brains, is the octopus coexisting with others of its kind better than us?

SCIENCE SHORE | PAGE 4

AVNI THE TIGRESS

GITI TYAGI

Denuded forests stripped clear of trees, Gashing slashing a continual spree, Deprived of homes all habitants flee, Sprinting scooting abodes they leave!

I promised thee a haven safe, my little angels, But no refuge, no shelter, no port in the storm, No skills, no prowess I rendered nor taught, Miserably failed in protecting thee!

Sparse time at hand frittered away, Hiding enshrouding for fear of life, No licking patting hugging kissing, Dreading arms in human hands!

On a quest to find the fierce me, Sleepless nights they spent as me, Irate humans, packs of sniffer hunting dogs, Unjust combat, fought hundreds to one!

Cool dry spell, clear starry skies,
Gentle breeze, moonlit forest path shown bright,
Deadly dreadful fatal fight,
On the ill-fated chilling November night!

The blame's on me, the struggle's all mine, None pleaded implored nor upheld my rights, To live and play with my young ones two, The motherly love, their protector gone!

Majestic stripes, my eyes shut tight, My heart weeps for you, my little ones, Return not to me, as now I leave, Run, dear babies.....run for your life!

The poem is about the plight of the animals who are made to suffer because of the human activities.



STILLNESS SPEAKS

JAYALAKSHMI

Slip out from the clamorous swarm
Sink in realm of soulful vyom
When heart speaks relevant the questions
Stillness response, precise the solutions
Souls converse unison with nature
Chit chat in verdant moors of literature.
Where lively mouthpieces announce relentless
Counseling tips for solace endless
Prayers and sacrifices pure to solicit
Where stillness the serene nest to meditate.
Creation's symphony festive vibrant
Sacred lyrics souls inhale instant
Silence, inborn language love to commune
Flawless path to human peace sanguine.

DARK CLOUDS

JELLIE N.WYCKELSMA

Visible from a distance
Dark and ominous clouds approach
Sky soldiers marching on during the night
While the earth is fast asleep
When only the wind and the ocean waves
Play a little night music ...

Was Amadeus Mozart thinking about dark clouds When he played his harpsichord Could he have turned them into a sonata in D minor...

The dark clouds arrive, drenching a barren land People rejoice, dance and sing in the rain. -Rain, rain don't go away Stay all day, stay all day.-

Nature waits patiently for the sun to return It will, for such is life ...

CIENCE SHORE PAGE 48

THE LUNCH-TREE

KAMAR SULTANA SHEIK

The lunch hall had limited seats. We younger students Couldn't get seats most of the time, For we dared not challenge the elder girls.. So we had our own lunch-spot, The shade of the old tamarind tree. One of us would bring a spreading cloth, We sat around it with our tiffin-boxes. And learnt the lesson of sharing.. And discovered the joy of eating together, We began as classmates And left as staunch friends. We learnt to converse and keep secrets. Sitting around its sturdy roots, Enjoying its soothing breeze... And one day when it was time To leave school for good, We gathered to say our goodbyes.. To each other and our beloved tree. Who like an old friend wished us well, And sent us on our way... Just as it had done for many before us... And when after years I came back to school, As a guest of honor, I saw so many bright faces That brought back my school-day memories.. And before I left that day, I simply had to go back to the Tamarind tree, "I know not when life will end, I may go before you ,or maybe you first, friend, But my young life was better made, In your loving shade. So, thank you again

And again.

SHE...

KEERTHANA RAVIKUMAR

She wriggles and giggles with joy, having known Your arrival.

She runs and jumps with gratitude to Lord, though she knows its going to be a tough journey to welcome Your arrival.

She nourishes herself all throughout the trimester for You to be created healthy.

She loses all her beauty in order to create You, beautiful.

She welcomes You into this world by faking a smile though she suffers pain.

She feeds you with vitamins and minerals transforming her blood to the same.

She neglects all her recreations to nurture and nourish You in proper intervals.

She sacrifices all her time to see that first smile, first turn and first crawl, You encounter.

She boosts You with strength and stamina though at times, she lacks both.

She instills confidence by encouraging You, in what you are good at.

She enlightens your path to success forgetting her own preferences.

She feels, You obtaining the success fruit, is where lies her success.

"She" The wonderful woman in everybody's life - Mother.

CIENCE SHORE | PAGE 50

DESENSITIZED

LATHA PREM SAKHYA

Two pillars, the back legs fettered to a stump
Hardly allowing you to move
You stand swaying, your trunk
Groping for palm fronds to chew,
Flies swarm buzzing around your legs.
Your tail reduced to a stump
Futile, to brush away the flies,
The wiry hairs pulled out for money To satisfy the beliefs of grandmothers and mothers
To protect their wards from evil eyes.

Voiceless, you stand shifting your leg
Drops of tears, tiny rivulets make me wonder
Is it the shimmering heat or your painful plight The cause of such a flow?
The summer heat singes you
Like Hades sulphurous lake.
The constant friction of chains
Created gaping, festering wounds.
Camouflaged skilfully with paint to cheat
The roving, loving eyes of elephant lovers All this in a land where you are revered.

"Oh, Vigneshwara, Oh, Ganesha the remover of obstructions! Why don't you help yourself and flee far away? From the human beasts who revel in the agony of others Blind to the sufferings of fellow denizens, Desensitized by materialistic living."

SCIENCE SHORE | PAGE 51

UPWARD LADDER

LEENA RAJAN

Greatest of all is what, each may wonder, in our life?!
Guess can anyone so far of its importance in brief?
Genuine education, we are definite, the greatest of all properties,
Generally, education is counted as the most majestic of all assets.

Parents, teachers and friends are knowledge givers the greatest, Providing education on anything to us of order loftiest, Popular notion is parents are the leading teachers significant, Pouring knowledge of various kinds on so many an object.

Teachers teach, History, Geography, Philosophy, Maths, Technology, Science, Psychology and many languages.
Too many friends, several information that they know, induce, These people, with love, give us life's practical advice.

But another one is there, a hard task master who teaches us, Beside us, testing and trying us, very shrewdly harsh, always Beyond number, he gives us all possible hardest tests. Bettering our ways and making us learn ourselves.

Experience, is he, our greatest beneficiary as a teacher! Eminently if we sincerely obey experience's true culture, Enticingly well we gain great success by this dreamy swayer. Experience's teachings, in fact are our true upward ladder.

SCIENCE SHORE PAGE 52

AN UNDEFINED BOND (FATHER TO DAUGHTER)

K. MONIKA

You are my priceless treasure from the above

And a bundle of delight and love.

From your mother's womb you hail

Came out with a loud wail.

I snuggled and cuddled you in my arm

And forever I'll protect you from harm.

An ambivalent of emotions you gave me

And I was crammed with happiness and glee.

The moment you hold my hand

Gave me the strength that I can achieve anything in this land.

That day was filled with pleasant air

And I'll shelter you with love and care.

You've bestowed me with king's crown

And after your birth things changed upside down.

Your innocent and cherubic smile

Paves me to come across each of my hardest mile.

Your warmth of hugs and kiss

Was my true bliss.

The days gone, your baby talks flew away

And you've grown up today.

Each passing day you grew to such height

And never forget that you're my dazzling light.

You've proved me the powerfulness of fatherhood

When you come across the adulthood.

You're my understanding heart

And leave the silly fights apart.

You're becoming even more beautiful at your passing ages.

And I swear you I'll be there at your every stage.

You've added a spark

Even in my dark.

Oh! My ray of sunshine

There is no doubt you're strictly mine.

Oh! My little angel! Never shed your tear

Dadda is always there to protect you from fear.

A girl child is never a tension

She is tantamount to ten sons.

SCIENCE SHORE PAGE 50

WOMEN: THE GLOBAL LEADERS

NEHA S CHAKRAVARTHI

Like dew that sees the sun, she glitters; With boundless dreams to achieve, she flutters: Sets the horizon as her success. Valour and grace great women possess. An architect of her destiny and realms, Ever different from what she seems. The protagonist of her saga is she, Seldom offended by rivalry, she'll be. Sensible is she in her race Unaffected by others' pace. A downfall, if ever it strikes The fighter in her is ready to rise. Nothing can scare her, not even defeat, Tantrums, turmoils and deceit. With life's lessons, she emotionally grows, Noblest virtues in herself, she nurtures. She's all appealing, in and out: It's beauty with brains, with no doubt. An owl is she in her tricks and tacts. Exceptionally professional in all her acts. In the spark of her eyes lies her command, In her magnificent aura lies her grand. Embracing the good and bad, she sustains. Revealing her hardships, she restrains! It's time we bow, For the world lies by her love. O wonder woman, you're tranquil, not timid. Elegant, ecstatic and vivid! You soar, you dive, Yet grounded you are, all your life. Tears have been your step ahead, Towards the passion in your head. With stereotypes all torn to shreds, In your light of wisdom, the world's led. Women - you govern, you fight, Your pride grabs the limelight. It's your era, your leap,

We seek your thoughts deep.

Imbibing struggles far and wide, Setting your strengths for a stride!

ON THE FRINGE OF MY NATION

NEHA S CHAKRAVARTHI

On the fringe of my nation, Like candlelight, they shine, In all cold winds and rain, They fence us with warmth. Disconnected from worldly leisure, Yet, entwined with a million hearts. Their eyes reflect the pride, That crores of my kind carry. With a heart made stronger, By howls and pain of death And the choking rattles of their Fellow mates, bidding goodbye. Assure us of festivities in light, Surrendering themselves to the deadly dark. Despite foreseeing their sad ends, Pallor-spread and shroud in white, They are all smiles and proud, Being on the fringe of my nation!

SCIENCE SHORE PAGE 55

SOULFUL MONOLOGUE

PRIYA KARTHIK

When circumstances mercilessly push you To an unfamiliar page, Lucid thoughts stumble to pass through An inevitable life stage.

Chaotic thoughts howl causing powerful storm Piling heaps of dust blurring the mind. Hope crumbles devoid of any form, Confidence withers, faith becomes blind.

How do you erect and define yourself? How do you solve the clueless puzzle? How do you mend your broken Self And find a promising path without any struggle?

When lost within, grab a listen to calm flowing whispers, To rise in a glorious way from the shambles. Profound whispers are energetic sprinklers, Dewy thoughts pulsate with power; not stumbles.

Sip the soulful monologue drop by drop, Let your parched soul relish the elixir divine, Energy soaked heart raises to higher plane from bottom to top, And opens the window to bask in the dazzling sunshine.

Then, confidence tastes the glistening morning dew,
Faith unfolds kissing the golden beams,
Hope ascends inhaling the breezy breakthrough,
And Self silently blooms drinking in the blessed streams.

You'll cascade with elegance nourishing the once barren path.

I AM ETERNITY

ROOPA SUBRAMANI

Beginnings and endings,

Where did I begin and where will I end, can anyone really tell?

For this mystery of life has kept mankind tethered to it's inevitable spell,

But what we think, say or do in between though might seem like pulling on the reins of our own free will.

Who can then dare escape the consequences of having sown upon the ever fertile mind soil?

Beginnings and endings,

Nothing more than a child's play in life's playground,

With some wins and most losses being the fate of those that are bound,

By the rules that the treacherous life game does propound,

But for the truly weary and wise a new secret way beckons to be found,

In an act of self defense of surrendering one's ego to the foreground,

Where the lone player lays watching and waiting forever being unwound,

Only to embrace the victorious one without the slightest sound.

And from that place as the beginningless and endless essence,

I have been awakened to see,

The play of consciousness dancing forever with glee,

In the hearts of all beings so wild and free,

And in that very moment, in time,

'I AM ETERNITY',

Without a beginning or end simply existing as I was meant to 'BE'!

SCIENCE SHORE PAGE 57

THE SANDS' AGONY

SHALINI SAMUEL

And with my heart I call peace Where the flowers bloom in its seasons, And the boiling of my heart under Sun, stops; And I heal my wounds without getting bowled over.

The ocean or the sky:
My valiant guards make smiles much shinier
And forever underneath the perfect hovering of the sun
My soul and the universe, talk about the luminous sea dressed in blue
That this mighty blue queen is full of misery and mystery.

When her million pale and harrowing eyes are brimming,
The dead ships and its plastic residue, has long gone beneath;
And then you may walk benignly to her residence, to enjoy her beauty
Speak of her significance and her destructive whirls- Yet
You force those nets and garbage to go for swimming,
Hastily you gift her tons of rubbish, again and again.
When I have your names and identities, I wish I could sue you.

Seeing her dust clad skin on a silver day
It's my heart that sobs, shrieks all day and night
By the ocean shore as a tiny little sand.
Man,the preacher and follower of morals,
Thy tongue, speak for thee, without getting bitten by your teeth,
The poor old souls akin to me seeks a peaceful domicile
The blue and green souls wish your tongue will speak for us one day.

SCIENCE SHORE | PAGE 5

NOT LIKE OTHER FLOWERS

SHREYA SEVELAR

In a field full of life, a beautiful spread Pretty are the flowers, a carpet of red There stood Daisy, tall and proud But on her face, a frown

"Ugh, so much perfume, those roses I simply cannot stand their cliché poses I only hang out with the grass Parties? I'll pass!"

The crimson of their cheeks
A sign of the thorns beneath
"Not me! I 'm white simplicity"
Red meaning rattle brained, implicitly.

"I'm different, better, so pick me please!" And picked she was, little Daisy Or should I say, she was plucked And into the weed pile, chucked.

She spent her time in an endless tirade Her 'differentness' she would parade Different she was, that's true For under the soil, her roots grew Growing and seeking, ways to pull Not herself up, but others down.

Be yourself, in this world's field Love yourself, and be freed.

ONLINE CLASSES - LIFEBOAT

SHRIJA

When watching TV and playing with mobile Turned us dull and dumb,
Online classes emerged to push away
The mundane boredom.

Learnt lessons through Zoom, Instead of a spacious classroom. Copied notes from small gadgets, Instead of from big, broad black board.

Concepts taught thrice,
Through voice over, online teaching and YouTube videos,
Although it lacked face-face interaction,
It could not stop our healthy discussion.

Though Covid 19 like a huge wave Swallowed the fun of schools, Online classes appeared as lifeboat To take us to the world of virtual learning.

SCIENCE SHORE | PAGE 60

UNISON

SETALURI PADMAVATHI

The moon, amidst all the glittering stars travels around the vast sky with no bars; The bright star, shows the way to all, alone The blue sky spreads wings of clouds, its own!

The nomad wanders from place to place, aloof finding his livelihood, with a temporary roof; Every living creature on the land born solitary Rest of them stick on to him or her, though vary!

Parents and siblings form a replica of society For their routine chores, trod with a piety; Each of them walks the path with will, single and faces challenges with all, does mingle!

Togetherness starts in every family, ever sharing love, pain and bonding or endeavour; Families form communities, in turn states States combine into a nation, on any date!

O dear, a man is certainly a social creature He can never deal with his life, in any feature; He is always dependent on folks and place He ever compulsorily treads along with a race!

Men in unison, fight for their actual rights Together, citizens become powerful in sights; A firm, cannot flourish without an eligible group All firms strive together for success, as a troupe!

MEMORIES OF IMAGINATION...

SUDHA RAJENDRAN

Blue, pink, yellow and green...

Memories of my imagination pop up before my eyes,

Like brilliantly hued sweet cotton candy.

Elephants, bunnies, flowers and trees...

Memories of my childhood float freely in my head

Like intangible clouds in myriad shapes.

The memories of my childhood imagination are

As lovely as getting drenched in the mid summer rains.

They are as fascinating as watching a pinprick of an airplane

soaring overhead in a cloudless sapphire sky.

Sometimes, they are as scary as drowning in the vast depths of the blue sea.

That childlike wonder of imagination still smoulders within.

I have left part of me behind in that imaginary world.

I still expect a fairy to flutter down from a tree.

I still hope to strike a conversation with a flying butterfly.

I still try to catch that lone ray of sunshine.

I still believe that I can unfurl my wings and take flight like a bird.

It still hurts seeing those crisp yellow leafs falling to the earth.

And I still want to vanish into the innocent world of my imagination.

CIENCE SHORE PAGE 62

EARLY JANUARY APRICITY IN CHENNAI

VIDYA SHANKAR

UNKIND NIGHT. SO COLD. SO DARK.

Spread his billowing blanket,

Closing in on her realm

Even before she had laid down for the day,

But she bothered not,

For fatigue was her companion

And all she wanted to do was

To rest awhile.

Cruel Night seemed fiercely imposing,

As if to threaten that she would never see

Another sunrise again,

But she knew she was sunshine;

Hers was to rise, and shine.

Night, after all, was here

Only because she chose to move over and set

And till she rose again, he could hold sway.

So, letting the darkness blanket over,

Unperturbed, she sunk into peaceful repose.

Night spread a gloating chill, whispered a numbing threat—

"You are done, forgotten."

Un-worried, she deliberated in the luxury of her bed,

Maybe a tad longer, (for it was winter),

Till she could sleep no more.

Barely did she open her well-rested eyes

And stir her well-relaxed fingers and toes,

Than cowardly Night took flight,

Though leaving behind a thick fog in the wake.

Winter Sun rose, peacefully, at her own pace,

Her apricity filling the atmosphere.

The grey haze lingered hesitantly, defeated,

But Winter Sun embraced the silveriness

With her golden pink droplets of kindness,

Enveloping the earth with an aura of serene warmth.

Meanwhile, down on earth, In the city that sprawled by the Marina, Poets and photographers, yogis and the corporate misfits, Looked up at the heavens, filling their irises and lungs

SCIENCE SHORE | PAGE 63

With the magical celestial air,
Their skins tingling with joy
And their hearts brimming with happiness,
Grateful for yet another pleasant winter morning.

Disclaimer

Content published in the Science Shore Magazine represents the views of the contributors and does not represent the views of the magazine. Science Shore cannot accept legal responsibility or liability for the opinions or views of the contributors or any omission or inadvertent errors.

Copyright

Copyright stays with the authors and first publication rights to the magazine. The magazine will not be responsible for any copyright infringement.

For feedback and contributions, reach us at

www.scienceshore.com scienceshoremagazine@gmail.com