



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL



*Ask of 'me'! Who am I!
I am the future of future,
travelling with the moon in one hand and
Its pale light clung in the other.
I will find the way in chosen,
unchosen battle
and will wondrously stride....
I am wild justice for betrayal,
I am self-sufficient, compassionate,
Ordinarily extraordinary,
vibrance of the sun I am,
I am mystery of earth, blooming autumn,
musing of life
My soul is a paradise, an elusive serenity....
Ask of 'me'! Who am I!
I am a Mandirian,
a life time learner
and
tint and shade of future*

SCHOOL BUZZ



EDITION III

MANDIRIAN SENTINEL
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DESIGNS OF LEARNING

HEAD OF THE FAMILY SPEAKS

What I know best out of my experience, people learn best when the environment is natural, provides a well-balanced space for the development of intellect, spiritualism, aesthetics and physical and mental strength. I have always thought of an organization, as per the settings and requirements of my country, a place, where learning will happen in a non-threatening, unburden-some environment and with lots of innovation. I envision various elements that should be the integral part of the learning: A good school **visibly** and **substantively** improves the community it is embedded within, adapts quickly to social change, has students who get along with and support one another towards a common goal—and they know what that goal is, produces students that read and write because they want to.

So let's talk about 'AN IDEAL LEARNING PLACE' via third edition of MANDIRIAN SENTINEL. An ideal learning place admits its failures and limitations while working together with a 'global community' to grow, has diverse and compelling measures of success—measures that families and communities understand and value, understands the relationship between curiosity, inquiry, and lasting human change. This place uses professional development to improve teacher's capacity over time and teaches thought not content. An organization should be more concerned with cultural practices than pedagogical practices—students and families than other schools or the educational status quo. It helps students understand the nature of knowledge—its types, fluidity,

uses/abuses, applications, opportunities for transfer, etc. and it helps the learner to experience disruption in its own patterns and practices and values because its students are creative, empowered, and connected, and cause unpredictable change themselves. This place must produce students who can think critically—about issues of human interest, curiosity, artistry, craft, history and more—and then do so. Think how your institution could develop on these lines!

To facilitate learning in a better way there has to be learning walls and stairs on which theorems, diagrams, formulas can be written. The library is the cynosure in the organization. A glass, well-acoustically designed cubicle for the discussions, debates, extempore, group discussion and for the exchange of ideas. An amphitheater at the centre of the school adds to learning by providing a space to practice dramatics, public speaking and also for open-air teaching –learning. The school should have special focus on extra-curricular activities as: swimming, horse-riding, athletics, football, basketball, baseball, volleyball and cricket. The place should have a provision for evening clubs to facilitate life-skills. Such learning spaces and designs would prove the starting points and measuring instruments for holistic development of a 21st century learner. There essentially should be a student authoritative body that can work for the better and hands-on learning of junior students. Such sessions should take place once a week. **The education that prepare a child for competition is**



EDITION III

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

not a true education, it can't be for it has to prepare the child/learner for reaching his/her potential. It should be instrumental to be the best version of self.

The space i.e. school or organization plays a crucial role in facilitating not only a sense of responsibility and moral learning but also a sense of belongingness and awareness towards the aim of life, hence it should, by all means, cater to the all-round development of learners. The learners during schooling have high level of curiosity and inexhaustible energy to explore the environment, henceforth the school should have the well-equipped fields and game posts.

My personal belief is that **the world is moving away from a risk-averse mind-set of 'getting a government job, to a more entrepreneurial and dynamic perspective.** This cannot be nurtured in a day, so the schools should have an inclusive approach. For me, an ideal school environment recognizes that student success is a complex goal to achieve. Providing for this success for all students and measuring it must be accomplished with many tools. The same goes for the classroom. If teachers are going to meet the needs of all students, they must build a toolbox of strategies that is geared towards diverse learners and learn how to work effectively with each of their students.

Standards and accountability are useful structures within which to operate; however, when they become the drivers for change they tend to limit innovation. We end up with all schools looking and feeling the same and most classrooms being rather generic places in which students learn. One size doesn't fit all students! I fear that the high-stakes assessments that will follow the Common Core Standards rollout will only make matters worse.

Trust and parental participation are also features of a successful school. Trust between all parties of the school community is vital for enhancing the school's effectiveness because it supports the prospect that parents and teachers believe in each other's motives and actions. Parental participation is also important because it sends the message to students that the adults in their lives--both teachers and parents—believe in the importance of education and are willing to make time to support students' educational experiences and efforts.

DESIGN YOUR OWN LEARNING PLACE! BEST WISHES!

[ANIL KUMAR SHARMA, PRINCIPAL, BIRLA VIDYA MANDIR]



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL



The Covid-19 pandemic has taught India several painful lessons. The first is that we can no longer continue with the ruthless exploitation of nature. The climate crisis, erratic weather phenomena, pollution of air, land and ocean have pushed the country, and the world, to a dangerous brink. Unless this is reversed immediately, we are in for serious trouble by the end of the century. It is extraordinary that the lockdown period has led to nature regenerating. We saw blue skies again after many decades, pollution levels dropped, and several species of animals, birds and insects staged a comeback. We must try and ensure that these positive developments are sustained so that we do not revert to the old normal,

but adopt a new normal vis-à-vis nature. COVID-19 hit us without warning.



What started out in December 2019 as an isolated outbreak of a respiratory illness, ostensibly transmitted from the horseshoe bat in a wet market in the city of Wuhan, China, led rapidly to a public health emergency of international concern on 30

THIS CORNER TO THAT CORNER

WHAT HAS COVID-19 TAUGHT US: LESSONS FOR LIFE AND OF LIFE

January 2020 and being declared a pandemic on 11 March by the World Health Organization (WHO).

In a short span, it has affected almost 6 million people worldwide, resulting in more than 355,000 deaths. The world has not seen such a widespread disease since the H1N1 swine flu pandemic in 2009 and the Spanish Flu in the early twentieth century. It has taught us the meaning of life and its purpose; reminded us what we are, deep down to our bones, minus our hypocrisies.

In pre-corona times, this philosophy would have sounded what Camus called life itself — absurd. We'd have assigned higher meaning and purpose to life — pursuit of happiness, quest for knowledge.



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

TEAM EDITORIAL

In the world of pursuit of survival was premised on something similar to Newton's Law: For every action there is an equal and opposite reaction. In karmic terms, what you sowed, you generally ended up reaping. But, corona has upended both philosophy and science: **every action can lead to unintended reaction**. Now simple acts, like going out in public without a mask, taking a walk in the park, touching a door, could be a death sentence.

The pandemic has turned not just philosophy on its head; it has done the same with history. For thousands of years, the march of humanity was towards what we called organized society.



The cave dwellers started living in groups; the hunter-gatherers organized themselves as agricultural societies; the agriculturists evolved into industrial cities;

and the industrial towns and cities merged into a global economy. This millions of years of evolutionary process has been set back to its starting point by a mere virus in a span of days — like the first cave dwellers, we are now on our own; the society, as we knew it, has ceased to exist.

When each person is on their own, it leads to a pandemic of selfishness. It is a trait that's engraved deep on our psyche because of the fundamental law of the universe — **survival of the fittest**. Humanity tries to balance this primary human instinct with concepts of kindness, altruism, the greater common good, et al. But corona has taught us that all these concepts are irrelevant.

A crisis is like a big mirror in the face — it reveals the real us. **As they say, cometh the hour, cometh the man**. So, corona has revealed that the fight for survival can make us easily lock ourselves up from the world, both physically and emotionally, turn ourselves into not just the centre of the universe, but the universe itself. We can throw out tenants; keep out doctors by the



day and bang utensils for them by the night; sack our employees and cut their wages; shut our eyes to the plights of hungry, desperate, homeless migrants; deny the dead the dignity of cremation, stigmatize and victimize people who are ill; and, of course, turn the world into a dog-eat-dog fight for self-preservation. But, all this, like everything else, wouldn't last.

There is, however, an irony at work here. Much as humans love to be self-centered, they can't live without others. At the first sign of existential threat, they retreat into their cocoons. But, you can't keep them



EDITION III

there for long. That's because, intrinsically, humans seek attention, with attention they seek status and with status they seek development-- material, emotional and intellectual. And all these can't be achieved without being part of a society, the world outside. The need to interact with the world necessitates fundamental changes in behavior.. So, tenants would be welcomed back, doctors would be next to divinity again, maids and migrants would become sine qua non again, and funerals would yet again see a large mass of mourners, with their impeccable whites and faux grief. The world would be a stage again, and we'd all be performing soon. **Being human would be the biggest act in the town again.**

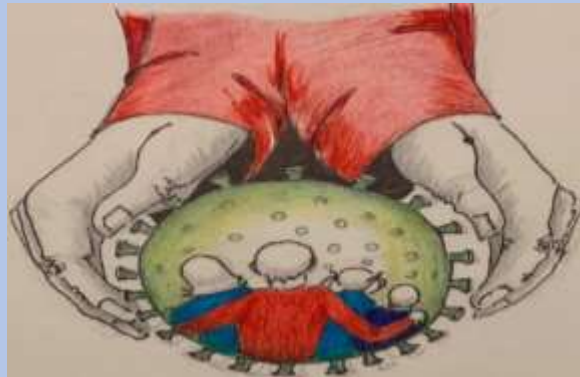
Will humans always live in fear? Look around. You can already see people pouring out, as if the ancient cages meant for Roman slaves have been thrown open. The fear of the virus is receding, even if the disease itself is raging. The virus has taught us the benefits of silence and solitude so that we can look into ourselves and explore the deeper recesses of our consciousness. We are so involved in superficial activities that we seldom get time to look within. In the ultimate analysis, it is our inner

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

consciousness that will express itself in our actions and relationships.



In the past two months, we all have seen life has taken 360-degree turn due to the Covid-19 pandemic. In my opinion, a virus that has continuously been cursed all over the globe has actually done a favor to humankind. It has reminded us to live our life. We cannot deny the fact that even without our knowledge, we were living an automated life. Somewhere while meeting the daily work deadlines and stress, we always longed for a break. Since God has granted us the desired break, it turned us restless. Have you thought about it? Why are we full of anxiety and stress during this

lockdown period? What is the missing part? Or are we pursuing the wrong goals? Do you realize since we stepped into this big world as an adult, suddenly, our requirements changed? We started seeking happiness in worldly or frivolous things. Although in our hearts, we knew everything is temporary. But sparkle and artificial happiness tempted or rusted our brains completely.

If we look deep down, this deadly virus outbreak has taught us many things. Be thankful that we are alive because we changed with time and accepted the new way of living. We can count innumerable blessings bestowed on us. The Covid-19 has woken us from a deep slumber. We are lucky to witness and being part of this change, which happens once in many centuries. Think about how we'll share our experiences, be it good or bad, with our future generation. We all have several stories to share with them. Thank you, coronavirus, for opening our eyes, allowing us to be part of this significant social change.

[ANWESHA CHANDRA, IX A]



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

CHANGE IS ONLY CONSTANT

ARE HUMANS EVOLVING OR DEVOLVING

People commonly assume that our species has evolved very little since prehistoric times. Yet new studies using genetic information from populations around the globe suggest that the pace of human evolution increased with the advent of agriculture and cities.

If we are still evolving, what might our species look like in a millennium should we survive whatever environmental and social surprises are in store for us? Speculation ranges from the hopeful to the dystopian.

When you ask for opinions about what future humans might look like, you typically get one of two answers. Some people trot out the old science-fiction vision of a big-brained human with a high forehead and higher intellect. Others say humans are no longer evolving physically—that technology has put an end to the brutal logic of natural selection and that evolution is now purely cultural.



The big-brain vision has no real scientific basis. The fossil record of human skull sizes over the past several thousand generations shows that our days of rapid increase in brain size are long over. Accordingly, most scientists a few years ago would have taken the view that human physical evolution has essentially ceased. But DNA techniques, which probe genomes both present and past, have unleashed a revolution in studying evolution; they tell a different story. Not only has *Homo sapiens* been doing some major genetic reshuffling since our species formed, but the rate of human evolution may, if anything, have increased. In common with other organisms, we underwent the most dramatic changes to our body shape when our species first appeared, but we continue to show genetically induced changes to our physiology and perhaps to our behavior as well. Until fairly recently in our history, human races in various parts of the world were becoming more rather than less distinct. Even today the conditions of modern life could be driving changes to genes for certain behavioral traits.



If giant brains are not in store for us, then what is? Will we become larger or smaller, stronger or weaker, smarter or dumber? How will the emergence of new diseases and the rise in global temperature shape us? Will a new human species arise one day? Or does the future evolution of humanity lie not within our genes but within our technology, as we augment our brains and bodies with silicon and steel? Are we but the builders of the next dominant intelligence on the earth—the machines?



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

Tracking human evolution used to be the province solely of paleontologists, those of us who study fossil bones from the ancient past. The human family, called the Hominidae, goes back at least seven million years to the appearance of a small proto-human called *Sahelanthropus tchadensis*. Since then, our family has had a still disputed, but rather diverse, number of new species in it—as many as nine that we know of and others surely still hidden in the notoriously poor hominid fossil record because early human skeletons rarely made it into sedimentary rocks before they were scavenged, this estimate changes from year to year as new

discoveries and new interpretations of past bones make their way into print.

Each new species evolved when a small group of hominids somehow became separated from the larger population for many generations and then found itself in novel environmental conditions favoring a different set of adaptations. Cut off from kin, the small population went its own genetic route and eventually its members could no longer successfully reproduce with the parent population.

And what about moral and ethical development- the one that is even more crucial. Think about it!

[KUSHAGRA KAPOOR, XI A- SCIENCE STREAM]

WHAT'S IN! WHAT'S ON!

AN ADDENDUM TO NEP

2020 seems to have a thing for surprising us in its own unique ways. This time around, it is pertaining to the sudden approval of the long pending National Education Policy (NEP) 2020, by the Indian government. Surely, the announcement stirred up the country, but for all the right

reasons. Despite being one of the fastest growing economy in the world, with a demographic dividend only next to China, the country, so far, has only seen two education policy revamps post-independence, in 1968 and 1986.

That means, the last time we ever had a policy change, was over three decades ago. Pretty naturally, in the last three decades, the world has gone through an array of paradigm shifts. Transitioning from mechanization to digitization, and everything in between, it has moved on a



EDITION III

great deal. So much so that, the information technology in this new era, have managed to alter not just the way our industries and various economic sectors operate, but also our lifestyles, to an unimaginable extent.

This transformation to sustain, it requires an upgraded education system. The new policy is aimed at bringing **effective** and **sustainable** change right from the pre-schooling stage of a student, to become better prepared for a modern world, which is majorly driven by intellect and skills.

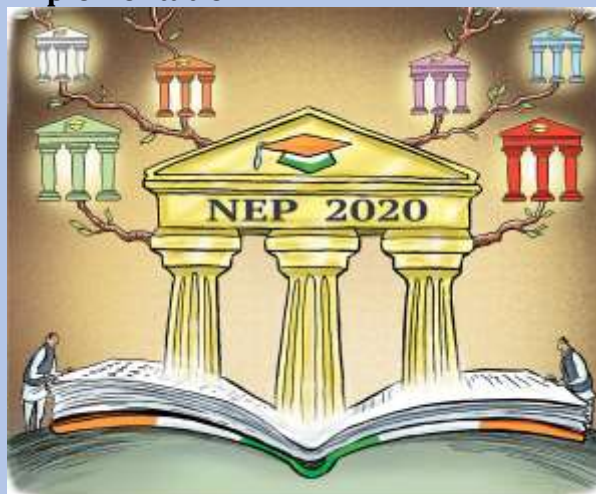
The National Education Policy (NEP), 2020, has received an unprecedented scale of attention and publicity, compared to any other contemporary reform agenda. Within a week of its approval on 29 July, the University Grants Commission (UGC) and the Ministry of Education (MoE) jointly organized a couple of high level webinars focusing on the role of the NEP in transforming education. What is notable about these webinars, which were attended by scores of senior-level functionaries, is that they have been addressed by the Prime Minister and the President. Such webinars are also being organized at the state level. The idea behind these webinars is twofold: One is to

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

familiarize and sensitize policy implementers and the other is to strategize and develop a roadmap for its implementation.



The commitment shown in the last one-and-a-half months demonstrates that, after the eleventh Five Year Plan, education has occupied centre-stage in the development agenda once again. This perception may be strengthened if the system starts showing visible changes by effecting unequivocal support in terms of the selection of leaders capable of handling the envisioned transformation and ensuring both enhanced budgetary provisions and a timely flow of funds. It may be

corroborated further if the system swiftly starts responding to implementation requirements by way of initiating activities and assigning tasks for the purpose of re-examining existing provisions and formulating essential frameworks as proposed in the policy. What remains to be seen is whether the prevailing enthusiasm persists unto the implementation of the policy or gets run over by some other unforeseen agenda in times to come.

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In short, the introduction of NEP 2020 can be considered as an ace move by the government, to transform India into a knowledge superpower in the 21st century. However, despite the policies' futuristic approach, there is still a lingering curiosity among people regarding the kind of benefits it will bag, and in fact, that is quite justified for a democracy.



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

So, let us quickly go through some of the benefits this new education policy has to offer:

Increasing employability: To begin with, according to a recent report by Aspiring Minds, 47% of graduates in India are not employable for any industry role, particularly in today's knowledge economy. This data helps in drawing attention to one of the major benefits of the NEP 2020. The new education policy will play a crucial role in facing one of India's biggest challenge, which is making the youth self-reliant and employable, to create wealth either through jobs or self-employment.

Vocational training to nurture creativity: The policy prioritizes vocational skills in particular, which helps in building critical cognitive abilities. Such skills acquired in the early years of schooling, becomes helpful later in developing a creative personality. Introducing children to vocational training is also a great way to divert their minds from tiringly focusing on bookish knowledge.

Education, not burden: Practical learning have attained a new and improved status in the education policy.



Education is all set to become scientific, keeping the fun elements for children intact at the same time. Against the current perception towards education being an unavoidable burden, unique ideas like 'Bag-less days' proposed in the NEP 2020, will help in inculcating a natural interest in children to learn new things. There will also be crafts like carpentry, arts, sports, along with more experiential learning and humanities as subjects as part of the primary curriculum, which will further help in creating better citizens for the nation.

Universality of education: One of the primary benefits of the NEP 2020 is, it

emphasizes on democratizing quality education for the benefit of each and every citizen of the country. It basically means, no children of this country, no matter what socio-economic category they belong to, will be spared from getting education. Although the implementation will take time, considering the policy has just been introduced, the new education policy is projected as the sure shot weapon to uproot the challenge of unemployment in India in a more effective and meaningful way.

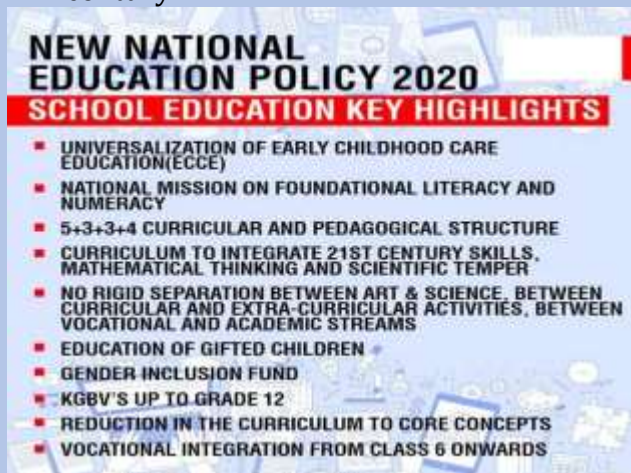
Gains for the corporate sector: The benefits of the NEP 2020 are not just limited to improving the overall perspective of the Indian Education sector. It surpasses that primary goal, and aims at majorly impacting the Indian corporate sector. With more skilled and highly employable youth generated with the help of this new education policy, the corporate India is surely in for some solid competitions in the future ahead.

Lastly, NEP 2020 is not just a hope for the Indian Education Sector, in terms of pulling out the country's future generation from the dark pit of uncertainty. It is also a fool-proof strategy to set global standards in



EDITION III

education, knowledge and scientific discoveries, as well as to make this country emerge as a knowledge superpower in the 21st century.



The Ministry may consider creating a committed bureau to accelerate the pace of all the legislative proposals. Obviously, these recommendations can be fructified into reality only with the will and commitment of the government.

The second set of recommendations would require the formulation of new apparatuses which hitherto do not exist but are now envisioned as inevitabilities to compete with the best of the world.

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

Recommendations like the formulation of the National Higher Education Qualification Framework (NHEQF), Academic Bank of Credit (ABC), Institutional Development Plan (IDP), defragmentation of higher education, designing of virtual labs, evolving the criteria for the three sets of institutions, bringing all teacher preparation programs under the ambit of the university system, a merit-based tenure track system, online proctored examination, etc, form part of this category.



The third set of recommendations would require the examination of existing instruments for the purpose of aligning them with the requirements of the day. Recommendations such as revising the Choice Based Credit System (CBCS), the National Skill Qualification Framework

(NSQF), moving towards more liberal multidisciplinary undergraduate education with multiple exits, e-content development, integration of values and ethics, criterion-referenced testing, etc., are going to be part of this category.



Most of them are directly related to the basic realities of classroom processes which eventually bring about qualitative improvement and thus ought to be accorded priority in the scheme of teaching and learning. Since they are in pursuit of activities like teaching, learning, skilling, research and testing, their implementation may be carried out by individual institutions without looking up to any command room. Since there are three sets of recommendations, it is imperative to



EDITION III

adopt different approaches for their implementation.

The second category of recommendations, which would warrant the setting up of a couple of taskforces comprising eminent experts may be undertaken simultaneously. Likewise, the third set of recommendations may also be carried forward by individual institutions. It is thus clear that some of the operational activities in the implementation process may be carried out concurrently across the categories. An important aspect of the entire exercise may, however, be how ably

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

the senior-level executives and heads of institutions across the states understand the spirit of the intents of the policy statements and efficiently and effectively strategize their implementation.

Another important aspect that needs to be taken into account is the level of support to the state governments. Since the bulk of higher education is with the states, which are starved for funds, the federal government may consider constituting an expert committee for the purpose of ascertaining the quantum of resources required for the implementation of the

policy and then making budgetary provisions to meet the shortfall. The bottom line is how the Ministry of Education and the state departments of higher education mobilize finances to meet the most immediate financial challenges as everything involved, from structural changes to quality initiatives, would require a lot.

[NEELU JAWLA- DEPARTMENT OF ENGLISH] EDITORIAL TEAM

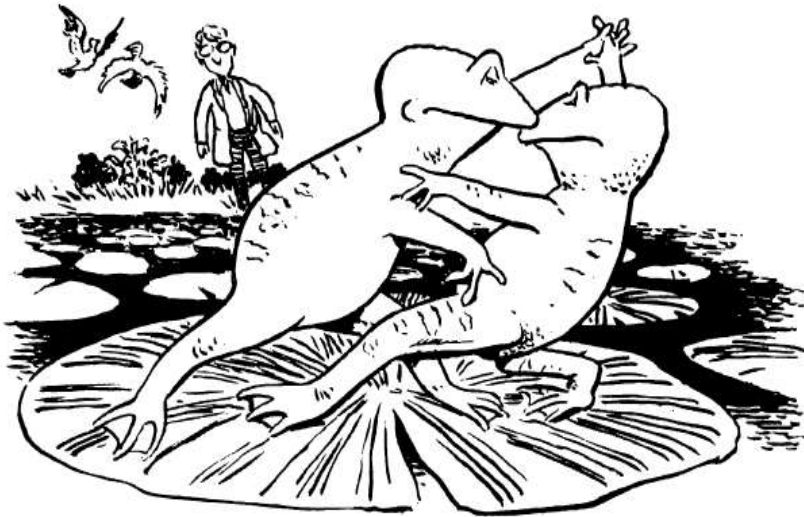


MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

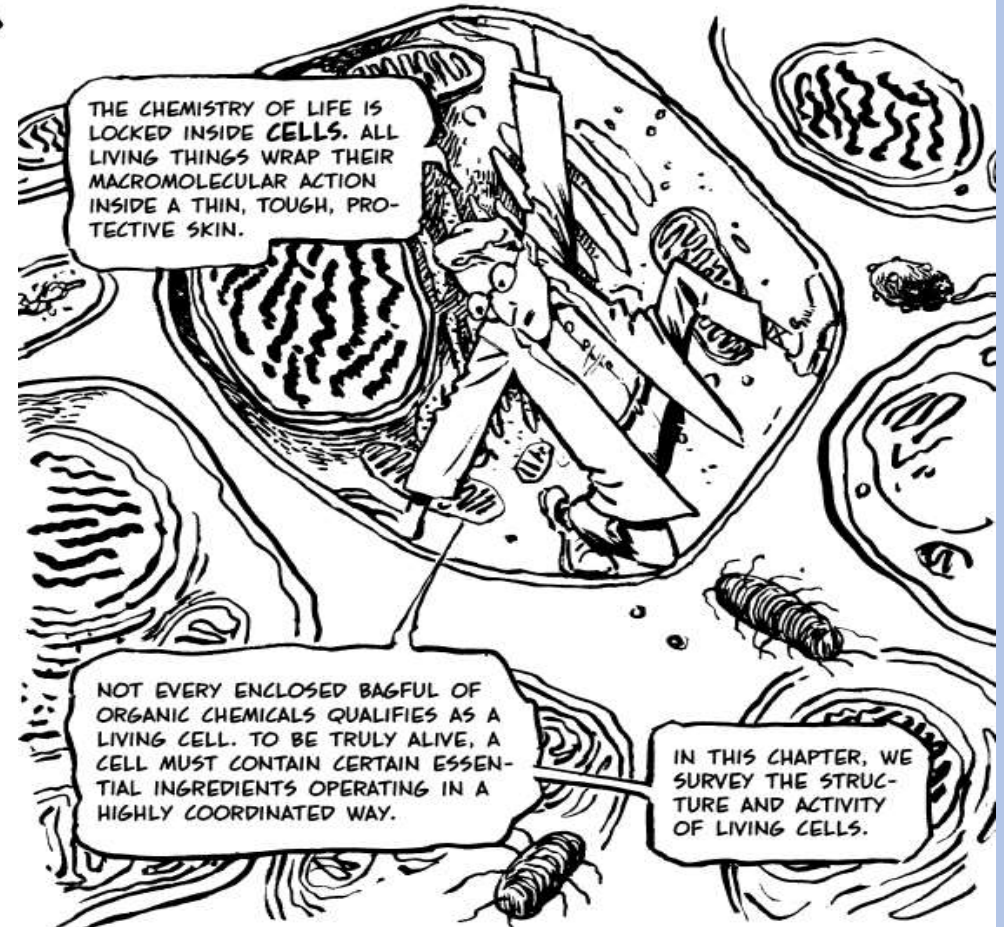
FALL INTO READING A DIFFERENT WAY!

THE CARTOON GUIDE TO **BIOLOGY**



INTO THE CELL

LIFE INSIDE





MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

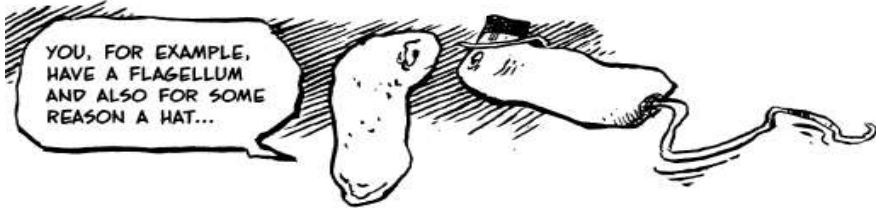
EDITION III

FALL INTO READING A DIFFERENT WAY!

BIOLOGISTS CLASSIFY CELLS INTO TWO BROAD TYPES, ONE LARGER AND MORE HIGHLY STRUCTURED, THE OTHER SMALLER AND SIMPLER.



THOSE FEATURES FORM A SORT OF BARE MINIMUM OF CELLULAR EQUIPMENT: A DNA "INSTRUCTION MANUAL" (THE GENES), RNA AND RIBOSOMES FOR READING THE MANUAL, A MEMBRANE, AND CYTOSOL. ALL CELLS HAVE ALL THESE THINGS; SOME CELLS HAVE MORE; NONE HAS LESS.

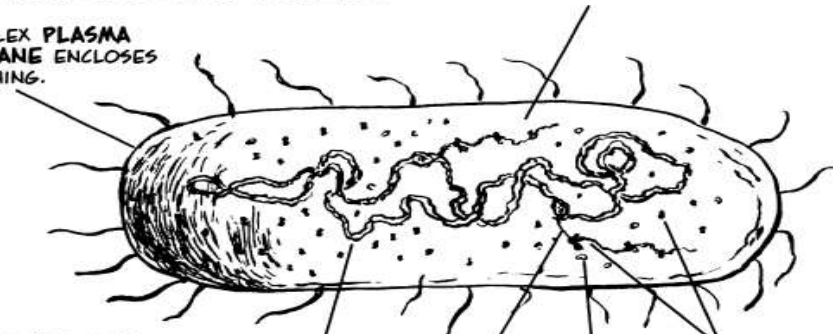


THE SMALLER, SIMPLER CELLS ARE KNOWN AS **PROKARYOTES.**

THE BACTERIUM *E. COLI*, WHICH THRIVES IN THE HUMAN GUT (YOU HAVE BILLIONS OF THEM!), MAKES A GOOD MODEL PROKARYOTE.

THE **CYTOSOL**, A WATERY FLUID LOADED WITH DISSOLVED PROTEINS AND OTHER MOLECULES, FILLS THE CELL.

A COMPLEX PLASMA MEMBRANE ENCLOSES EVERYTHING.



SIZE SCALE (MICRONS)
1,000 MICRONS = 1 mm.

DIAMETER	
~100	HUMAN HAIR
0.5-2	BACTERIUM
0.02	RIBOSOME
0.005-0.01	PROTEIN
0.005	MEMBRANE THICKNESS

DNA STORES ALL THE CELL'S VITAL INFORMATION.

RIBOSOMES BUILD PROTEINS BASED ON RNA READOUTS OF DNA.

RNA TRANSCRIBES DNA FOR READOUT.

PROTEIN UNDER CONSTRUCTION.

PROKARYOTES INCLUDE TWO DIFFERENT GROUPS OF ORGANISMS. YOU'VE PROBABLY HEARD OF **BACTERIA**, SOME OF WHICH CAUSE DISEASE WHILE OTHERS DO GOOD THINGS LIKE DIGEST FOOD IN YOUR GUT AND MAKE YOGURT FROM MILK.



THIOMARGARITA NAMIBIENSIS, WORLD'S LARGEST BACTERIUM

THE OTHER GROUP, THE OBSCURE **ARCHAEA**, WERE FIRST FOUND MAINLY IN HOT, HARSH, WEIRD ENVIRONMENTS, BUT IN FACT ARE WIDESPREAD. OUTWARDLY, THEY LOOK LIKE BACTERIA, BUT DIFFER CHEMICALLY, INSIDE AND OUT.

EVERY PROKARYOTE IS A COMPLETE, INDEPENDENT, **UNICELLULAR** ORGANISM.





MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

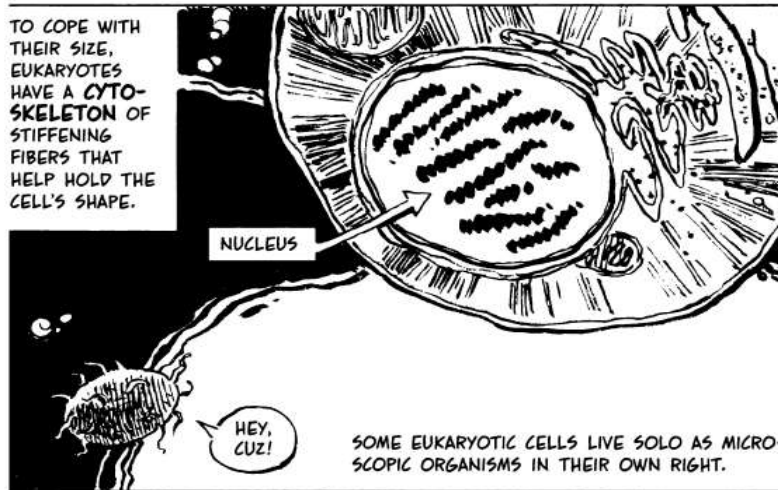
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

FALL INTO READING A DIFFERENT WAY!

EUKARYOTES DWARF THEIR PROKARYOTIC COUSINS, WITH VOLUMES UP TO A MILLION TIMES GREATER. A SINGLE FEATURE GIVES EUKARYOTES THEIR NAME: THE **NUCLEUS**.* THIS BLOB, OR **ORGANELLE**, CONTAINS THE CELL'S DNA WITHIN ITS OWN NUCLEAR MEMBRANE.

TO COPE WITH THEIR SIZE, EUKARYOTES HAVE A **CYTO-SKELETON** OF STIFFENING FIBERS THAT HELP HOLD THE CELL'S SHAPE.



SOME EUKARYOTIC CELLS LIVE SOLO AS MICROSCOPIC ORGANISMS IN THEIR OWN RIGHT.

OTHER EUKARYOTES BAND TOGETHER BY THE BILLIONS TO MAKE **MULTICELLULAR ORGANISMS** LIKE PEOPLE, JELLYFISH, MOSQUITOS, MUSHROOMS, DOGWOOD TREES, AND EVERY OTHER VISIBLE LIFE FORM. IF YOU CAN SEE IT, IT'S EUKARYOTIC.



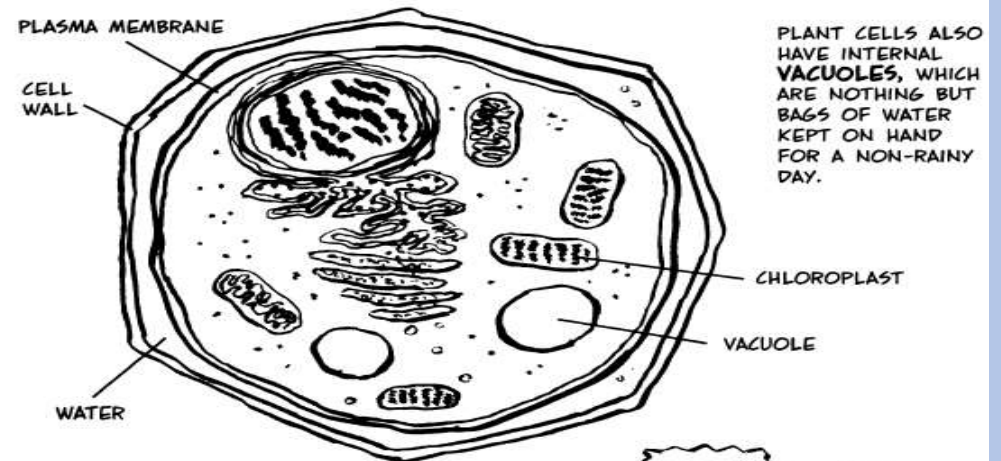
*EU = TRUE. KARYOTE = KERNEL.

PLANTS, OUR PARTNERS IN (AND FOR) LIFE, HAVE A FEW EXTRA FEATURES THAT REFLECT PLANTS' SPECIAL ROLE AND UNIQUE CHALLENGES.

FOR EXAMPLE, UNLIKE ANIMALS, PLANTS CAN'T WALK TO WATER AND TAKE A DRINK. PLANTS FACE A WATER PROBLEM.



SO THEIR CELLS STORE WATER IN THE SPACE BETWEEN THEIR PLASMA MEMBRANE AND A SEMI-RIGID **CELL WALL** MADE OF CELLULOSE OR OTHER POLYSACCHARIDES.



PLANT CELLS ALSO HAVE INTERNAL **VACUOLES**, WHICH ARE NOTHING BUT BAGS OF WATER KEPT ON HAND FOR A NON-RAINY DAY.

PLANTS ALSO HAVE A SPECIAL ABILITY: THEY CAN **EAT AIR**. MORE SPECIFICALLY, PLANTS TAKE IN **CARBON DIOXIDE GAS** AND USE IT TO MAKE **GLUCOSE FUEL**. BRIGHT GREEN **CHLOROPLASTS** HOLD THE EQUIPMENT FOR STARTING THAT PROCESS.





MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

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ART IS THE ULTIMATE SOLACE TO SOUL.

THE ARTISTS UNVEIL (The click n brush) Vishrut Sagar, Ayush Rai and Bhavesh Kothari





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EDITION III

RAI'S FOOD FOR THE THOUGHT

NOW OR NEVER - ATMA NIRBHAR BHARAT

We often are concerned about the hype we hear about India becoming a world leader, even the next superpower. After all what constitutes a world leader? If its population, we are on course to top the charts, we will overtake China by 2034. Is it military strength? Well, we have the world's fourth largest army. If its nuclear capacity, we know we have that. The Americans have even recognized that, in an agreement. Is it economy? Well, we now have the fifth largest economy in the world in purchasing power parity.

Atma Nirbhar Bharat or simply self-reliant Indiathat is based on 5 pillars of economy, infrastructure, system, demography and demand. Atma Nirbhar Bharat is not that companies from outside start assembling gadgets or other products in India. But the real Atma Nirbhar Bharat will be considered when the companies from India start to compete with the outsiders. 15 million cell phones are sold each month,

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but what is most striking, is who is carrying those cell phones. Cell phones, which are considered a luxury in the early stage of development of India, are now a necessity. Companies like Micromax, Karbonn, Xolo, Lava International needs to be intensified in a developing country. To aggrandize India the Indian companies needs to be brought into play.

The new education policy that cropped up will open up a room to maneuver. It's 'Now or Never', we heard a lot of anecdotes during the lockdown. A 14 year old riding all the way to Mumbai from Bihar to bring back home his injured father from the same. A Jaipur farmer who used natural methods to grow cucumbers and earns about Rs. 30 lakhs per Annum. Somehow these beautiful recitals fire each one with enthusiasm.

Chinese apps such as Tiktok, UC browser, Shein, Club factory after being prescribed have paved a way to development of softwares in India. The time is precise to sow the seeds of atmanirbharta so as to ensure ripe fruits in coming times.

Keeping all this aside, in today's era its not a country with a bigger army that wins, but a country which tells a better story prevails. Entertainment has concatenated humanity. 'RAMAYAN' an apocryphal did beautifully spread the message of humanity and rich culture of India all over the globe.

**[HARSHVARDHAN RAI, XI A
SCIENCE STREAM]**



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

SOFIA: A PIONEER OF WATER ON MOON

What's SOFIA?

It's a modified Boeing 747SP aircraft with telescope attached on it, which is used by the astronomers to ease their study of our solar system. And it also allows the astronomers to study those areas which are beyond the range of the telescopes which are ground-based.

It is modified to carry a 2.7-meter (106-inch) reflecting telescope (with an effective diameter of 2.5 meters or 100 inches). Flying into the stratosphere at 38,000-45,000 feet puts SOFIA above 99 percent of Earth's infrared-blocking atmosphere. Its mobility also allows it to capture transitory or temporary events in astronomy over remote locations like the open ocean. Because SOFIA lands after each flight, it can be upgraded with the latest technology to respond to some of the most pressing questions in science.

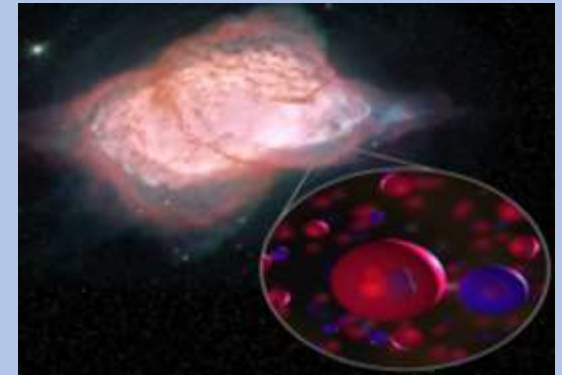
Using SOFIA, scientists detected the universe's first type of molecule in space, unveiled new details about the birth and

death of stars and planets, and explained what's powering super massive black holes, and how galaxies evolve and take shape, among other discoveries.



Discoveries by SOFIA

Universe first type of molecule
SOFIA found the first type of molecule to form the universe, called helium hydride. The same kind of molecule should be present in parts of the modern universe, but it had never been detected outside of a laboratory until SOFIA found it in a planetary nebula called NGC 7027.



Nearby Planetary System is similar to ours

The planetary system around the star Epsilon Eridani (eps Eri), is the closest planetary system around a star similar to the early Sun. SOFIA studied the infrared glow from the warm dust, confirming that the system has an architecture remarkably similar to ours. Its material is arranged in at least one narrow belt near a Jupiter-sized planet.



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL



New View of Milky Way's Center Reveals Birth of Massive Stars

It captured an extremely crisp infrared image of the center of our galaxy. Spanning a distance of more than 600 light-years, this panorama reveals details within the dense swirls of gas and dust in high resolution, opening the door to future research into how massive stars are forming and what's feeding the super massive black hole at our galaxy's core

Magnetic Fields May feed Active Black Holes. Magnetic fields in the Cygnus A galaxy are feeding material into the galaxy's central black hole. Invisible forces, shown as streamlines in this illustration,

are trapping material close to the center of the galaxy where it is close enough to be devoured by the hungry black hole was revealed by SOFIA.



Magnetic Fields are might keeping milky way's black hole quite

SOFIA detected magnetic fields, shown as streamlines that may be channeling the gas into an orbit around the black hole, rather than directly into it. This may explain why our galaxy's black hole is relatively quiet, while those in other galaxies are actively consuming material.



The current discovery

It's been couple of days that SOFIA has detected water molecules (H₂O) in the largest craters visible from Earth, located in the Moon's southern hemisphere, named Clavius Crater. Previous observations of the Moon's surface detected some form of hydrogen, but were unable to distinguish between water and its close chemical relative, hydroxyl (OH). Data from this location reveal water in concentrations of 100 to 412 parts per million -- roughly equivalent to a 12-ounce bottle of water -- trapped in a cubic meter of soil spread across the lunar surface. The results are



EDITION III

published in the latest issue of Nature Astronomy. This discovery challenges our understanding of the lunar surface and raises intriguing questions about resources relevant for deep space exploration.

As a comparison, the Sahara desert has 100 times the amount of water than what SOFIA detected in the lunar soil. Despite the small amounts, the discovery raises new questions about how water is created and how it persists on the harsh, airless lunar surface. Water is a precious resource in deep space and a key ingredient of life as we know it. Whether the water SOFIA found is easily accessible for use as a resource remains to be determined. SOFIA's results build on years of previous research examining the presence of water on the Moon. When the Apollo astronauts first returned from the Moon in 1969, it was thought to be completely dry.

CASE STUDY ON TUBARIAL SALIVARY GLANDS

Researchers from the Netherlands Cancer Institute in Amsterdam have freshly discovered a new pair of salivary glands in the upper

MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

Orbital and impactor missions over the past 20 years, such as NASA's Lunar Crater Observation and Sensing Satellite, confirmed ice in permanently shadowed craters around the Moon's poles. Meanwhile, several spacecraft -- including the Cassini mission and Deep Impact comet mission, as well as the Indian Space Research Organization's Chandrayaan-1 mission -- and NASA's ground-based Infrared Telescope Facility, looked broadly across the lunar surface and found evidence of hydration in sunnier regions. Yet those missions were unable to definitively distinguish the form in which it was present -- either H₂O or OH.

Using its Faint Object infra-Red Camera for the SOFIA Telescope (FORCAST), SOFIA was able to pick up the specific wavelength unique to water molecules, at 6.1 microns, and discovered a relatively surprising concentration in sunny Clavius Crater.

How it might have formed?

First possibility is that several forces could be at play in the delivery or creation of this water. Micrometeorites raining down on the lunar surface, carrying small amounts of water, could deposit the water on the lunar surface upon impact.

Another possibility is there could be a two-step process whereby the Sun's solar wind delivers hydrogen to the lunar surface and causes a chemical reaction with oxygen-bearing minerals in the soil to create hydroxyl. Meanwhile, radiation from the bombardment of micrometeorites could be transforming that hydroxyl into water.

YET THERE IS LOT BE DISCOVERED!

[DIVY PRAKASH SINGH, XI A- SCIENCE STREAM]

part of the throat while studying patients with prostate cancer. These findings appeared on October 16, 2020 in Radiotherapy and Oncology.



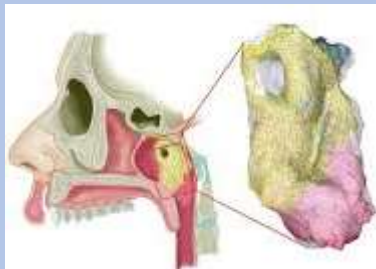
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AUGUST-OCTOBER, 2020

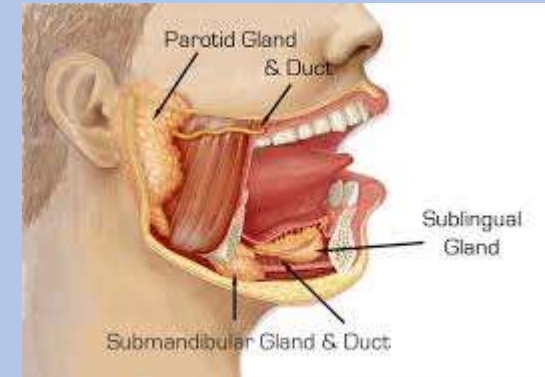
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

The scans of 100 patients and dissection studies on two cadavers were able to confirm the presence of this gland. “The human body contains a pair of previously overlooked and clinically relevant macroscopic salivary gland locations, for which we propose the name Tubarial Salivary Glands. This applicable discovery could be helpful for the patients who are undergoing radiation therapy for head and neck cancers.” wrote the researchers published in the journals, Radiotherapy and Oncology.



The new glands would reduce the difficulty in salivation and swallowing that the patients suffer following head and neck cancer. The new glands have been labelled as Tubarial Salivary Glands as they are situated over a piece of cartilage called The Torus Tuberosus. The glands are about 1.5 inches and lie in the nasopharyngeal region, behind the nose and above the throat. The study was accidental since the researchers were studying prostate cancer. The salivary gland system, known till now, is a three paired major glands and roughly 1,000 minor glands spread throughout the aero-digestive tract.



The three paired major glands are:

Parotid Glands- produce a watery secretion.

Submaxillary (submandibular) Glands- produce a mixed serous and mucous secretion.

Sublingual Glands- secrete saliva that is predominantly mucous in character.

This discovery needs to be studied further as there is more work that needs to be done to actually establish the discovery of this set of glands.

[CHAHAK SAXENA, XI A – SCIENCE STREAM]



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

ALMA MATER NEWS....ALL ABOUT EVENTS.....

3rd Corbett-Pant Young Ideator's Conclave 2020 (October 21st & 22nd, 2020)

The school hosted the 3rd Jim Corbett-Pandit Govind Ballabh Pant Memorial Annual Young Ideator's Conclave 2020, on Oct 21st & 22nd, 2020. The conclave, named after an alumnus and a distinguished co-founder of the school, is an annual feature of the school and aims at bringing young minds together. It makes them ideate on novel lines and is a test of their presence of mind, creativity, understanding and ideating. This year, because of the Corona-19 pandemic, the conclave took place over the zoom platform. Mr. Parnab Mukherjee, a virtual storehouse of knowledge, who has been encouraging and guiding the youth of the country for a long time, was the man behind the conclave. The conclave, spread over two days, had participants take part in the following events.

1. Multi Format English Debates
2. General Quiz
3. Creative Writing

The following schools took part in the conclave.

- ALL SAINTS' COLLEGE, NAINITAL
- BIRLA DIVYA JYOTI, SILIGURI
- BK BIRLA CENTRE FOR EDUCATION, PUNE
- BK BIRLA PUBLIC SCHOOL, KALYAN
- BIRLA VIDYA MANDIR, NAINITAL
- DAV PUBLIC SCHOOL, HAZARIBAGH
- MAYO COLLEGE GIRLS SCHOOL, AJMER

- ST. JOSEPH'S COLLEGE, NAINITAL
- MILES BRONSON RESIDENTIAL SCHOOL, GUWAHATI
- MOUNT LITERA ZEE SCHOOL, AMRITSAR
- RAJKUMAR COLLEGE, RAIPUR
- SCINDIA KANYA VIDYALAYA, GWALIOR
- SINGAPORE INTERNATIONAL SCHOLL, MUMBAI
- SUNBEAM SCHOOL, LAHARTARA, VARANASI
- SUNBEAM SCHOOL, VARUNA, VARANASI
- SUNCITY SCHOOL, VARANASI
- THE HYDERABAD PUBLIC SCHOOL, HYDERABAD
- THE INDIAN SCHOOL, NEW DELHI
- WOODBRIDGE SCHOOL, BHOWALI

Day 1: October 21, 2020

The conclave began with the opening ceremony, for which the Chief Guest was Ms. Nishi Misra, Principal, Scindia Kanya Vidyalaya, Gwalior and Chairperson of the Indian Public Schools' Conference (IPSC). A renowned educationist with an experience of more than 28 years and a recipient of the CBSE National Award for Principals in 2019, she is also well-known for her philanthropic work. The principal Mr. Anil Sharma welcomed Ms. Misra and thanked her for sparing time for the conclave. He also welcomed the principals,





MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

teachers and students of the participating schools and explained the aims of the conclave. After the principal's welcome address, Ms. Nishi Misra thanked the school management for inviting her to be a part of the prestigious conclave. She expressed confidence that the conclave would succeed in achieving its aim. She wished the participants good luck and declared the conclave open. Mr. Parnab Mukherjee then thanked the Chief Guest and explained the flow of the events for the conclave. He also explained the rules for the different events and answered the queries of the participants. The participants were then guided to the various virtual rooms for the different events. The first event was the preliminary round of the Multi Format English Debates. The turncoat speakers and extempore speakers expressed their views on the topics given to them confidently.

The top four teams, on the basis of the cumulative scores of the turncoat debaters and extempore speakers, qualified for the semi-finals, scheduled for the afternoon. The topics were related to contemporary issues and were very well expounded by the speakers. In the meantime, the participants of the Creative Writing contest were guided to their rooms. They were asked to write a short story on the theme 'Purgatory'. The story had to be written in 15 minutes. After the Creative Writing contest, the Art Installation contest and the elimination round of the General Quiz contest took place simultaneously. For Art Installation contest, the participants were required to sketch the blueprint of an improvised installation, using the following props:

1. Pink Band-aid strips

2. Pink bandage or white gauze bandage
3. Sunglasses
4. Gloves



The contest was very interesting and the contestants were tested on innovative usage of space and properties, visual alignment and adherence to the theme given to them. The elimination

round of the General Quiz contest was a written round. The contestants were given 30 questions, which they had to answer in the given time. The cumulative scores of the two contestants from each school were considered for finalizing the finalists. The top six teams reached the finals. In the afternoon, the Quiz final and the semi-finals of the Debates were conducted. Both the events were very interesting and displayed the contestants' knowledge, presence of mind and recall.

Each Debates semi-final was a face-off between two teams. The two semi-final winners qualified for the finals, which were scheduled for the next day. After the two semi-finals, the day's events came to a close.



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

**IF MY MIND CAN
CONCIEVE IT
AND MY HEART
CAN BELIEVE IT-
THEN I CAN
ACHIEVE IT.**



Day 2: October 22, 2020

On the second morning, only the Debates finals, between the two semi-final winners, were scheduled.

The two teams contested the finals very enthusiastically. After the finals, the results were announced by Mr. Mukherjee.

He then blessed the participants and declared the conclave closed. The host school thanked all the participants, their teachers and principals for participating in the conclave.



**Results of 3rd Corbett-Pant
Young Ideator's Conclave
2020**

1. MULTI FOMAT ENGLISH DEBATES

First: Mayo College Girls' School, Ajmer

Nivedita Agarwal, Sanidhi Singh

Second: Sunbeam School, Lahartara,

Varanasi

Shaurya Pandey, Rishita Singh

Third (Shared)

Mount Litera Zee School, Amritsar

Zyna Dhillon, Ananya Mehra

Singapore International School, Mumbai

Shivank Menon, Shanaya Kapoor

TURNCOAT DEBATERS:

First: Sunbeam Suncity, Varanasi

Sanidhi Singh

Second: Birla Divya Jyoti Siliguri

Samaira Gupta

Third (Shared):

Woodbridge School-Bhowali

Peehu Goel

BVM Nainital

Nirmal Yadav

EXTEMPORE SPEAKERS:

First: DAV Hazaribagh

Shamiparna Chatterjee

Second: Sunbeam School Varuna,

Varanasi

Ananya Singh

Third : Hyderabad Public School-

Begumpet, Hyderabad

Jaiveer Rajiv Aiyar

SEMI-FINALS:

Best Speaker (Shared):

The Indian School New Delhi

Shruti Arora

HPS Begumpet, Hyderabad

Darshini Geetha Krishnan

FINALS

Best Speaker: MCGS Ajmer

Sanidhi Singh



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

Best Interjector: Birla Divya Jyoti Siliguri
Shreeraha Roy

2. CREATIVE WRITING:

First: BVM Nainital

Agnivo Banerjee

Second: BKBCE Pune

Aditya Makkar

Third (Shared):

All Saint's College Nainital

Raksha Dhaulakundi

The Indian School New Delhi

Samaara Ravish

3. ART INSTALLATION:

Best Quizzard: Shivank Menon, SIS, Mumbai

Most Promising Quizzard: Kushagra Sanwal, BKBCE, Pune

Overall Champion- Sunbeam School, Lahartara

Overall Runners Up- Singapore international School, Mumbai

1: SKV Gwalior

Vanshika Agarwal

2: B K Birla Public School Kalyan

Harika Utwani

3: RKC Raipur

Akshit Kejriwal

Critics Choice: HPS Begumpet, Hyderabad

Navya Deepti

4. GENERAL QUIZ :

1: Sunbeam School Lahartara, Varanasi

Shaurya Pandey

Devesh Rai

2: BK Birla Centre for Education, Pune

Kushagra Agarwal

Akshat Singh

3: Singapore International School,
Mumbai

Shivank Menon. Aryan Shah



Winning is not
everything,
but the effort
to win is.



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

INTER SCHOOL COMPETITIONS

SENIORS ENGLISH ESSAY WRITING CONTEST (AUG 26, 2020)

Category 'A'

First PRANAV VARSHNEY
Second AVIRAL MITTAL
Third ADITYA SINGH

Category 'B'

First (shared)
KRISHNA GOEL
NAKSHATRA VAISH

Second (shared)
ADITYA RAJ
SPARSH AGARWAL

Third (shared)
ANVESHA CHANDRA
ASMIT GUPTA
SIDDHARTHA KATIYAR

2. Seniors English Slogan Writing Contest (Sep 16, 2020)

First
MAYANK KASHYAP

Second (shared)
KRISHNA GOEL
NAKSHATRA VAISH

Third (shared)
DIKSHANT
DIVY PRAKASH

AUGUST BRILLIANCE
(AUG 10-14, 2020)



1. English Debate
1. Nirmal Yadav
2. Prathmesh Dwivedi

**THE INDIAN SCHOOL, NEW DELHI 19TH DR. AMIDAS
GORADIA INTER SCHOOL DEBATES**
(AUG 27 & 28, 2020)

1. Prathmesh Dwivedi
2. Nirmal Yadav
3. Tanmay Gangwar

Prize

1. Tanmay Gangwar 2nd Best Bridge Round Writer

**BK BIRLA CENTRE FOR EDUCATION, PUNE 12TH BK
BIRLA MEMORIAL THOUGHT CONCLAVE (SEP 29 & 30,
2020)**

- (1) Creative Writing Contest
1. Agnivo Banerjee
(2) General Quiz Contest



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III



3. Vishrut Sagar

Prize: Nirmal Yadav Most Promising Turncoat Debater Birla Vidya Mandir, Nainital

**3RD CORBETT-PANT YOUNG IDEATOR'S CONCLAVE
(OCT 21 & 22, 2020)**

**THE SCINDIA SCHOOL, FORT, GWALIOR
ALL INDIA PLATINUM JUBILEE MEMORIAL INTER
SCHOOL QUIZ
(OCT 24, 2020)**

1. Kaustubh Pandey
2. Nakshatra Kanchan

1. Kaustubh Pandey
 2. Prathmesh Dwivedi
- (3) Multi Format English Debates**
1. Nirmal Yadav
 2. Pranav Varshney
 3. Agnivo Banerjee
- (4) Triologue**
1. Nirmal Yadav
 2. Prathmesh Dwivedi

(1) Art Installation Contest

1. Mradul Jaiswal

(2) Creative Writing Contest

1. Agnivo Banerjee

(3) General Quiz Contest

1. Pranav Varshney
2. Rohan Gupta

(4) Multi Format English Debates

1. Nirmal Yadav
2. Pranav Varshney

Prizes

1. Agnivo Banerjee 1st Creative Writing
2. Nirmal Yadav 3rd Best Turncoat Debater

**THE INDIAN SCHOOL, AL GHUBRA, MUSCAT
EA MUN CONFERENCE (OCT 24 & 25, 2020)**

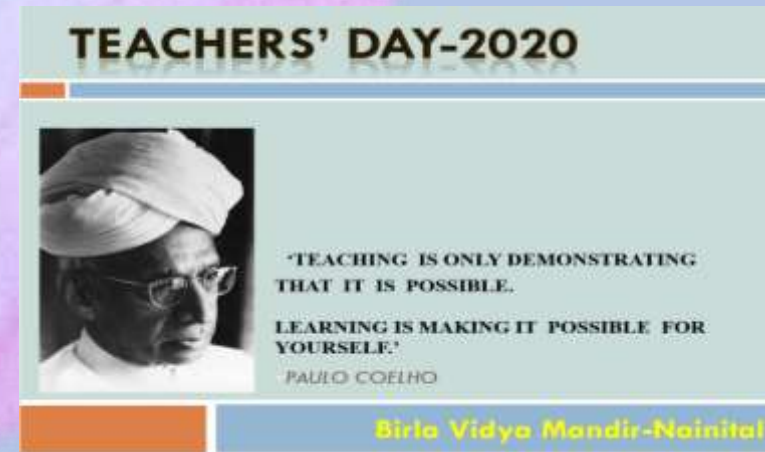
1. Pranav Varshney
2. Rohan Gupta



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

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EVENTS IN JUNIOR SCHOOL.....



REPORT BY:
Mr. DEEPAK KUMAR PANDEY, DEPARTMENT OF ENGLISH



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AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

KOTHARI AFFECT N EFFECT

R.K. LAXMAN: THE EVERGREEN EVERGOING CARTOONS

“So far as I am concerned, I am not at all aware that there indeed exists a serious side as well to my cartoons drawn in an inspired mood of mischievous abandon.” - R.K. Laxman.

For over five decades from 1951, each day Laxman won over his readers’ hearts, regaled them with his wit and yet left them with

something to introspect. Laxman had that common touch which appealed to the common man. And not surprisingly, he created his own 'Common Man'.

Many of the cartoons made by him long back still hold true and tell us that he was indeed a visionary, to foresee today's India.

Like the below ones, which feels so relevant in today's scenario with all the student protests going on in the country.



Cartoon
R. K. Laxman

We have a loan scheme. I assure you it is equally good. Why don't you try that instead ?



No, father, I don't want to be a great cricket champion. I just want to attract ad agencies to invite me to pose for toothpaste, shaving cream, soft drinks etc. There is plenty of money in that!



webneel.com



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AUGUST-OCTOBER, 2020
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ONE FOR DEMOCRACY
HERE.....



**BHAVESH KOTHARI and AYUSH RAI, XII A-
SCIENCE STREAM**



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

**ALUMNI CORNER....FOR YOU ARE THE EVER CHERISHED
MEMORIES.....**

SWAYAM SPEAKS

"I knew that looking back to the tears would make me laugh but never knew that looking back to the laughs would bring tears."

Memories are the part and parcel of one's life. This is an attempt to encapsulate the incessant memories of my journey in Birla Vidya Mandir (a home away from home). From a naive fat boy to representing the school as Basketball Team Captain, the journey here at BVM was incredible. You must've heard countless times about the unsavory food in hostel messes, to a certain extent it is true, but mess food has never been a problem in BVM (except Tuesdays). Sometimes it was such a delicacy that I couldn't stop eating. The journey, however, is not about the meals. It is about how BVM(hostel life) has helped me to shape my character, mould my mental attitude and fashion the basic principles of life. Usually, the scenario in each and every school is to give utmost significance to its academic pursuits. In BVM, the children were encouraged and guided in the field of their excellence along with the required Academic standards. The way of teaching was way better than I ever could have imagined and that proved results. This, in my view, is Academic Excellence. Being a BACKBENCHER from the very first year of the school, my name was always counted among the notorious boys (I admit that I was one). In a pursuit to improve the status of backbenchers, we pinned a quote on the Notice Board of our class, "The Backbenchers can also be the future of the Country".

In fact, at the time of camp and Boards examination, I was given a last warning. That ensured that I was no longer involved in mischievous, or at least did them more carefully this time. Wait a minute, I forgot to tell you something which is close to the heart of every Mandirian who has ever given Board Examinations while in Birla, THE CAMP. We call it HEAVEN, which might sound a bit ironic knowing that it is not in Nainital but in Lucknow where we go for about 50 days for rigorous Board Exam preparations. Schedule of the camp is what develops punctuality and time management skills in us and is the real GAME CHANGER in the Board results. Best place to study and prepare, best place to enjoy, best place to involve in late night talks and best place to understand the importance of friends. Relationship with teachers in BVM is not limited to Taught and learned but way beyond like a family. Their guidance makes me what I am today. Their perseverance has carved the future of every student. These seven years of my boarding life are, without doubt, the best years of my life. Recollection of all fond and cherished memories of those bygone days bring a smile on my face, now and forever. This is an experience which would stay dearest to my heart and it continues to cheer my mind and fill my life with vigor and zest that is the spirit of MANDIRIANS.

SWAYAM PANDEY BATCH 2019-20
STUDYING AT



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

PANKHURI SHARES

COVID-19...a pandemic...India lockdown...life stalled...negativity all around...a few months passed...searching a ray of hope...CBSE result announced...Topped in Science Stream and secured IV position in my school in class XII with 96.6%...unsafe future in prevailing Corona-virus situation...tried my level best...&...got much awaited news...Finally Selected in IIM, Rohtak for Integrated Programme in Management (IPM)...A Dream Come True.

Suddenly, my journey in Birla Vidya Mandir, Nainital flashed back. I still remember myself as 9 years old, alone girl student in the boy's residential school in class IV, much appreciated student for grabbing positions in various curricular/co-curricular activities in class V, excited for my first picnic to Zoo in Nainital and thrilled for excursion tour to Jim Corbett National Park in class VI, getting II position in the class VII, watching movie along-with classmates, enjoying educational trip to Bird Sanctuary, visiting Pines Old Cemetery and securing II position in the class VIII, qualifying NCC 'A' Level Exam and scoring 10 CGPA in class IX, coming out with flying colors with 95.4% and secured III position in my school in

CBSE Board Exams in class X and emerging as the topper of my school and receiving scholarship of Rs,20000/- in class XI.

I don't have words to express my gratitude for my school Birla Vidya Mandir who brought so many transformations in my personality - be it the sharpening of skill of public speaking, developing confidence, excelling in academics or the building of strong character. My eyes are full of tears, when I look back. It's not me who spent 9 years in the school, rather school invested its 9 years on me. I owe all my achievements to Birla Vidya Mandir, Nainital.

I take this opportunity to thank all my learned mentors who guided me at different stages while shaping my future. Last, but not the least, I would like to thank our Principal Anil Sharma Sir and the teachers who were there in this journey not only for providing the best amenities, congenial environment and unconditional support but also for keeping their for blessings me. Unforgettable moments...to be cherished forever.

PANKHURI SAXENA BATCH 2019-20
STUDYING (IPM) AT IIM, ROHTAK.



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

My Alma mater is and will always be the most special place in my life. Not only because I had spent the most crucial years of my life there, grown up from an immature lad to a mature gentleman, earned experience and gained 'forever memories' but also because I earned life time friends here and that is the most precious earning one could have. Writing about incandescent experiences at my second home, I would like to begin with what I received – the whole of it have shaped me into a caring, respectful, courageous and sensible individual, helped me to become organized". "... Ameliorated the cliquishness" ... be a better person". The poem in the box is the one that I remember till day.....and that is what I remember the first step to sharpen my common sense at BVM..... (Read and think how much you get of it!)

RUNNY'S HEADING RABITS

Runny lent to the wibrary
And there were bundreds of hooks-
Bistory hooks, biography gooks,
And lots of bory stooks.
He looked them over one by one
And guess which one he took-
A bience scook? A boetry pook?
Oh, no- a bomic cook!



A boarding school is more than a physical space for a young person to study and live at. There is no greater bond than one forged living together in dorms, among friends and peers, in the crucial formative years just before adulthood. Where co-ed high schools force

ADITYA SAYS.....

unnecessary fixation on appearance and the other sex, single-sex boarding schools provide an environment that is more supportive and non-competitive. That's what my personal belief is.

There are two types of people who attain success in Life. Some achieve their goals in a single shot and some achieve with experiences of their past. The mindset of the person who achieves success with experiences is strong. I am the one who was successful with my experiences. My experiences at the boarding school have taught me what a student should do in order to get success. It is always tough for a student to concentrate on studies if he is staying away from home. The one who overcomes those distractions and

disturbances will always get success in life. One has to prioritize their needs in life in order to achieve their goals. I should say that my experiences during my schooling were a turning point of my life. Rolling back my memories, I could remember the child I was when my parents dropped me at BVM. It was an alien land to me. I felt deeply homesick. I got it the very first night of my stay that it is going to be too difficult a survival but after few months the life turned 360 degree and I started loving the campus. Over the years my school shaped my personality and I understood that life isn't about living to the fullest at every instance, but it's all about planning our future and stepping on right stones at the right point of time. I understood that to achieve something bigger, one has to dream big and start working towards the goal. I was living a life with no goals till that point of time. I was just fooling around my life. But that just alone is not life, definitely not. So I realized my flaws and started taking my life seriously by fixing a goal in my mind. From that



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

point of time I never took my goals so lightly. I started my effort to be the better version of myself each day. Year 2019 had been an amazing one. It was the last year of schooling and I lived it, experienced it to the fullest. It taught me lessons for life and lessons of life. Heading the event managing team, debating in class, playing in ground and playing for the team bagged me all what I thought of achieving. BVM blessed me with lifetime experiences and friends the ones who will be closer than the heartbeats.....forever and always. Right now I am pursuing my graduation and still working on my goal

which is to pass this graduation with distinction. All these days I only believed in only one axiom “The three great essentials to achieve worthwhile are: **Hard work, Stick-to-itiveness and Common sense**”. If one believes in this trio then success will be at the door. I can’t thank enough to Sir Principal, my teachers and my friends for being there with me in all ups and downs.

[ADITYA RAHUL, BATCH 2019-20]

GURU SPEAKS

PARENTING DURING COVID-19

Ayn Rand once quoted in one of her bestsellers – *“If you saw Atlas, the giant who holds the world on his shoulders, if you saw that he stood, blood running down his chest, his knees buckling, his arms trembling but still trying to hold the world aloft with the last of his strength, and the greater his effort the heavier the world bore down upon his shoulders-what would you tell him to do?”*

“I . . . don't know. What . . . could he do? What would you tell him?”

“To shrug.” And shrug it did.

A tiny virus manifested itself within human race and it almost stopped the motor of the world.

Unending lockdowns, social distancing, covered face and body, incessant sanitization and a lot more painful ordeals became the norm of the world.

The trauma has been further extended due to pay-cuts, retrenchment, insecurities of sorts and above all, the fear of infection that could lead to an agonizing death.

During this gloomy pandemic, hope we aren't ignoring our most valuable possession – our children. Amidst the pandemonium around us, the needs of our children are being ignored much more than we can generally fathom.

Once a bubbling person, who used to make everything around him/her lively, is now left in nothing less than a penitentiary.

Someone who used to begin everyone's morning, every day with a beautiful sunshine in order to go to school is now constantly holed up in front of a screen to take online classes. There is no break after school hours, no meeting friends, no running around in the neighbourhood park, no visits to mall or cinema or amusement parks and historical places. There is no weekend getaway. The confines of the house have simply engulfed a childhood.



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

GURU SPEAKS

The school life that we so often reminisce smilingly, has taken an ugly form for our children in current times. The banter at school campus that makes an integral part of education has simply waned. The traditional classrooms have become a thing of the past now. The teacher who children treated as demi gods are left to nothing more than a window on the screen of the laptop, tablet or a mobile. The pleasant sound of chalk against the blackboard has given way to slide transition. The nudges, the hushes and the whispers of the co-students are now replaced by occasional whistles of the pressure cooker from the nearby kitchen. Instead of the sweet perspiration due to physical workout at the school ground, now our children only experience the 'thumb-fatigue' due to long hours of online/virtual gaming.

This has started to take a serious toll on the physical and mental well being of our children and for no fault of theirs. In absence of required physical exercises, the children are getting prone to health issues and with prolonged exposure to radiations emitting from different forms of screen, their mental health is under a threat.

Mothers & grandparents are getting more irritated by watching over their children 24x7. The tranquillity that every mother cherished, once her child was away under a kind supervision of his/her teachers, has transformed into off and on bickering. The fathers are under pressure for they have to sustain their earnings to run the house, in these difficult times. On top of it all, now there's an added responsibility of engaging their children constructively.

In wake of the above facts, it is all the more important for the parents to understand their children and make conscious efforts to save their children from the disastrous situation we are in. It is imperative for the parents now to help their children grow with healthy mindset.

With a little awareness, the task is not as arduous as it may look to be.

Here are a few suggestions that would help parents to strike a fair balance between their responsibilities and the requirements of their children-

Children rely on their parents for safety, both physical and emotional. Reassure your children that you are there for them and that your family will get through this together.

Make and maintain a daily routine. Life without a routine is purposeless and meaningless. A disciplined routine is a good motivation for children as they know what to expect and are not taken by surprise randomly. As far as possible, the earlier routine of meals, hygiene and entertainment should be exercised. This would help maintain normalcy as it was in pre-Covid times.

Spend designated quality time with them. This designated time should not be intruded by any other engagement. Nothing is more important than keeping one's promise. During this time, one must share or discuss all the important events of the day and listen to everything that your child might have to share. Various common activities include playing of board games, discussions of the memorable events of the past, planning for future activities, etc.

Spread an air of positivity. There is a way of finding out a 'positive' in every 'negative' event. "*Man ka ho to achcha, aur na ho to aur bhi achcha.*" There is an unrelenting strain on everyone due to everyone's presence round the clock. The same can be perceived and demonstrated as pleasure due to increased family time. 'Being there' boosts the morale of all the people concerned and children are most touched. The parents need to show to children the various positives that they could derive in current times. For example, they could be



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

inspired to utilize their time in pursuing hobbies, interests and passions that was not possible earlier due to paucity of time. They could be encouraged to read books, play some family games, draw, paint, play music, watch a few long-cherished movies, etc. Spreading positivity is a symbiotic activity that bears great fruits for everyone. **Support them in their strengths.** Children are naturally curious and inquisitive but they still need the environment and suitable guidance to hone themselves and reach their potential. Parents need to nurture and foster in a way that they blossom naturally. Parents need to understand where they need to step in and where not, when to show and when to tell, when to ask and when to just listen. They should facilitate their child's creativity while ensuring not to shadow with their own. Parents need to lead by example and not by precept. **Keep an eye on the online class regime.** In addition to taking care of the physical, mental and social needs there is another

responsibility on the shoulders of the parents and that is to keep an eye on what they are doing in their online classes and how they are completing their school assignments. Parents' involvement is a must in order to keep the kids abreast with the efforts made by their teachers and also to keep their interest alive in the school work. With the above points in fore, it can be safely concluded that parenting has always been a highly responsible task and in the present scenario, it has become all the more arduous. This can however become instinctive by accepting it positively. With positivity it would automatically become a Win-Win situation for all.

[WRITER ON WORK: Ms. SOHANBALA- DEPARTMENT OF ENGLISH]



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

A NEARBY TOUR.....

For **nature** lovers, **Mukteshwar** is no less than a heaven, replete with **natural beauty** and **serenity**. There are long **nature** trails available for those who wish to enjoy personal moments with **nature**. The area is rich in **flora** and **fauna**. All along the **nature** trails, you will be greeted by rare **birds** and exotic **vegetation**.

Nature trails or **trekking** is recommended during the day time. Popular **nature** trails go all the way from **Peora** to **Mukteshwar**, **Peora** to **Almora** or **Binsar** to **Artola**. The **forest** cover is thick around and can seem and sound crazily overwhelming once **darkness** sets in. There are certain areas that are not well-lit at **night**. So, getting extra **adventurous** in the evening is not recommended. However, if you wish to take a part of **Mukteshwar** along, we suggest taking home **pine cones**, which are strewn across almost everywhere. They can be used as **decorative** pieces at **home** and will always remind you of your adventures at **Mukteshwar**.

Another **fun** way to explore **nature** and its **surroundings** is by **camping**. There are different camping options available for every type of **traveler/adventurer**. Some camping options that you can choose from include survivalist **camping**, winter **camping**, **historical** camping, boutique camping, along with a few more options. The place is a must-visit for **nature** lovers, owing to its **unpolluted environs** and less **cosmopolitan nature**. The world-renowned **hunter Jim Corbett**, after whom the popular wildlife reserve Jim Corbett National Park is named, had visited **Mukteshwar** and loved its pristine beauty. There are plenty of **adventure sports activities** that you can choose from - **rock climbing**, **rappelling** and **paragliding**.



A popular spot amongst **rock climbers** for overhanging **cliffs** in **Mukteshwar** is '**Chauli Ki Jali**'. Do not miss this! You can find trained **instructors** along with ample of safety gear for all your **adventurous activities**.

Route to Mukteshwar from Nainital

Its such famous place nearby Nainital but I went there first time in 15 years of my stay at BVM. This place is around 50 k.m. from Nainital and is a must watch place. There is a temple first of all and the guide board says that the place holds a history of 5000 years of that region, which itself is amazing. This place was also mentioned by Jim Corbett in his autobiography as it's said there lived a man-eater tiger who had killed 300 people of that region and was finally taken down by Jim Corbett. The place is between forest and according to the local people leopards can be easily seen after 5 in



MANDIRIAN SENTINEL

AUGUST-OCTOBER, 2020

BIRLA VIDYA MANDIR, NAINITAL

EDITION III

the evening. Around 4-5 km from this place is a very big veterinary research institute. If you are a trek lover then 14km from here is a place called 'Bhalu Gaad', where there is the beautiful falls called the 'Bhalu Gaad falls'.



The Bhalu Gaad Falls

The name of this place basically means the area of bears, as once its said that bears were found in this region but now no sight of bear anywhere. To reach up to the falls you have to trek for about 1.2 km on the rough terrain. It is great fun going up to the falls. As once you will reach there you will forget all the pains of life for a moment and person feels empty. Well they have started to take entry tickets now but cost is very less as compared to the experience.

One can easily see trees like Pine (Pinus), Oak (Quercus), Deodar (Cedrus Deodara), Birch (Betula) and many more. Also one can easily find a plant called 'Pattharchatta' (Bryophillum pinnatum) which is said as its very affective for kidney stone. This plant grows on rocks and its said that its root grows by cracking the rock itself. On the way one can easily find orange trees, apple trees and pear trees.



But this forest region is getting polluted with day by day because we don't consider the world as our home. It's clearly written not to litter but still one can easily find a large amount of garbage. Well here its also the fault of authorities that there are only three dustbins on 1.2 km path and that too only at canteens. Let's see what will be the future of the forest and the fauna of this region in coming days. Will they be able to survive or would be destroyed to fulfill human pleasure.



EDITION III

MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL



So, if you are looking for a unique vacation in northern India, then **Mukteshwar** could be a good option. Located at a distance of 352 km from **Delhi**, **Mukteshwar** is well-connected by **flights, trains** and **buses/private vehicles**. For a journey that promises **fun, adventure** and **relaxation**, head to **Mukteshwar**. Think no more! Get ready for **nature, adventure** and **excitement** at **Mukteshwar**!

[PRIYANSH PARSAI XII A- SCIENCE STREAM]



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020
BIRLA VIDYA MANDIR, NAINITAL

EDITION III

**MANDIRIANS
RECOMMEND**

(1.) MOVIES TO WATCH

- a) Johnny English
- b) Mom
- c) The Dark Knight Trilogy

(2.) WEB SERIES TO WATCH:-

- a) Gotham
- b) Sherlock
- c) Brooklyn 99

(3.) SONGS TO LISTEN:-

- a) Blinding Lights
- b) One More Night
- c) Hymn For The Weekend

4.) CUISINES TO TRY:-

- a) Tacos
- b) Sushi
- c) Lasagna

5.) PLACES TO EXPLORE:-

- a) Pattadakal, Karnataka, India
- b) Rottnest Island, Perth, Australia
- c) Lotus Temple, delhi, India

(6.) VIDEO GAMES TO PLAY:

- a) Among us
- b) Clash Royale
- c) Minecraft

(BOOKS TO READ: EXAMS ARE APPROACHING AND I THINK NCERT ARE ENOUGH)

STAY TUNED FOR UPDATES

[ISHAAN CHANDRA, IX A]



MANDIRIAN SENTINEL
AUGUST-OCTOBER, 2020

EDITION III

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MANDIRIAN SENTINEL
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