

BVP's INSPIRED ROOTS

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SCIENCE MAGIC

-Garima Singh (XII, Bhavan Vidyalaya Pkl)

"What you learn from a life in science is the vastness of our ignorance." - David Eagleman.

The word 'science' originally came from the Latin word scientia which meant knowledge, a knowing, expertness, or experience. Every second that passes has an element of science. Science cannot be contained. What is now known to mankind is not even 0.00001% of its entirety. Even if someone lives more than 10000 of lifetimes, one won't be able to understand everything.

It was born as a result of humankind's need to understand various phenomena so they could survive. There were innumerable questions in the brains of countless which needed to be answered.

Various scientists are known to the world but is it really just them who gave the world science? The answer is no. It is the greatest collective endeavour. From the very first person in the Early Stone Age who learnt how to light fire by rubbing stones together, creating friction and using it to cook food to Humphry Davy, who in 1802 invented the first electric light contributed towards science. The earliest human species discovered the most basic principles of science to make their life easy. Fire, hunting tools, wheels, tools to obtain fibres from plants to make clothes, etc was used by people in Stone Age. Some experts believe that humans weren't the first to make or use stone tools. Some 3.3 million years ago, an ancient species that lived on the shores of Lake Turkana in Kenya earned that distinction – a full 700,000 years before the earliest members of the Homo genus emerged.

float. The stones used in making it were actually pumice. From use of herbs in curing diseases to making lethal potions to cover arrowheads used in wars was all science. Many stereotypes are a result of one or the other scientific realisations. Elders in the family telling us not to sleep under trees at night because of ghosts. The real ghost is the release of heavy amounts of carbon dioxide during nights. So many beauties out there exist because of science. Northern lights, one of the most dazzling things to exist is the product of collisions between gaseous particles in the Earth's atmosphere with charged particles released from the sun's atmosphere.

All in all, science will never stop to amaze us with its 'magic'. This never ending knowledge will either lead us to an ultimate breakthrough or an unexplainable doom. We will never be able to dissociate science from our lives and will forever remain lost in its mazes.

SHOULD EDUCATION BE FREE IN INDIA

Education is one of the most important national missions of our country. Education is the key to success and wholesome development of our country. It also forms the basis of cultural and physiological development of a child. Without education the youth of our country can't contribute in making their country better and more progressive.

According to me, Education should be made free in India because still our country is poverty stricken and not each and every parent can afford the fees of the educational institutions. In our country government institutions are providing free education to poor children but these government institutions are not efficient as private institutions. The private institutions focus on child's wholesome development and try to provide highest quality education to students and bring best result in every examination, so as to run their business. We see that among different schools there is a very competitive spirit and each school wants to occupy the top position whereas in government schools no such competitive spirit exists. So, the government should privatise their schools or tie up with private schools so that free and highest quality education could also be provided to poor children.

If our central government will provide free education to all then more the youth will get educated and they will be able to take the expenses of their family. There are many poor children who are intelligent, capable, and smart but they don't get a chance to show their capability. If the government makes the education free, then they will definitely get a chance to showcase their talent and they will succeed in their life. Providing free education has many economic benefits in future. The backward and weaker sections of our country will be able to lead a healthy lifestyle. They will have less communicable diseases and will take part in preventive measures against major diseases. Also, the proportion of educated youth will rise in our country.

In nutshell, the education should be made free for the Backward and weaker sections of our society. Education is the basic right of each and every child, whether he is rich or poor. By taking this step the government will be able to build a nation which is strong in economy, health, and morale.

By:- Purva Gupta

THE THEORY OF EVERYTHING:

A TRIBUTE TO STEPHEN HAWKING

- Stephen William Hawking was an English theoretical physicist, cosmologist, astronomer and author and is widely regarded as one of the most brilliant theoretical physicists in history. Born on 8 January 1942, Hawking attended University College, Oxford, where he studied physics. Hawking went on to Cambridge to research cosmology, the study of the universe as a whole.
- At the age of 21, he was diagnosed with motor neuron disease, more commonly known as Lou Gehrig's disease or amyotrophic lateral sclerosis (ALS) which gradually paralyzed him over the decades but he did not let it deter him from his scientific endeavors.

INSIGHT

- Many find it surprising, for instance, that, despite his influential body of work, Hawking was never awarded the Nobel Prize.
- Another interesting fact: Hawking was born on Jan. 8, 1942, which just happened to be the 300th anniversary of Galileo's death.

- Hawking radiation is black body radiation which is emitted by black holes, due to quantum effects near the event horizon. Hawking radiation reduces the mass and the energy of the black hole and is therefore also known as black hole evaporation. Because of this, black holes that lose more mass than they gain through other means are expected to shrink and ultimately vanish.
- Stephen Hawking's life exemplified the undying spirit. His life is an inspiration and motivation for humanity- for able, differently able, young and old alike.

“Intelligence is the ability to adapt to change.”

Rerun of Supernova Blast Expected to Appear in 2037

It's challenging to make predictions, especially in astronomy. There are however, a few forecasts astronomers can depend on, such as the timing of upcoming lunar and solar eclipses and the clockwork return of some comets.

Now, looking far beyond the solar system, astronomers have added a solid prediction of an event happening deep in intergalactic space: an image of an exploding star, dubbed Supernova Requiem, which will appear around the year 2037. Although this rebroadcast will not be visible to the naked eye, some future telescopes should be able to spot it.

Catching the rerun of the explosive event will help astronomers measure the time delays between all four supernova images, which will offer clues to the type of warped-space terrain the exploded star's light had to cover.

We feel happier when we act in service to others

The purest form of kindness may have no audience and offer no credit. Kindness to accumulate thanks is self-serving at best. Some may even say it's an effort to control or make the recipient feel indebted. But when we are kind even if — maybe especially if — there's no such payback, the rewards may be all the sweeter. I heard a story about someone who learned that a child from a family with very little money really wanted a bicycle. This fairy godparent bought a super nice bike and asked the shopkeeper to write a highly discounted receipt for an amount the family could afford. The family reimbursed the fairy godparent for the receipt price without knowing it cost far more. Now that's kindness!

Happiness was measured before and after the seven days of kindness.

BY: Vivek Jaglan XII B



Five cool Things about Mars

People have long been fascinated by Mars, and the idea of sending people to the planet has been a source of science fiction and science exploration for decades. Part of the interest is because scientists believe that 3.5 billion years ago, the climate of Mars may have been warm and wet, and might have supported life.

- 1. Color:** It's called the Red Planet because its iron-rich dust gives it landscape a rusty-red color.
- 2. Diet planet:** Mars's gravity is 38 percent of Earth's. So if you weigh 60 pounds here, you'd weigh about 23 pounds there.
- 3. Climate change:** At the equator, Mars is a comfortable 80 degrees Fahrenheit, but the temperature at its poles can get down to 199 degrees below zero.
- 4. In the air:** Mars's atmosphere is mostly carbon dioxide with traces of nitrogen and argon. Earth's atmosphere is a mixture of nitrogen, oxygen and other gases.
- 5. Longer days:** A Martian day is about 40 minutes longer than a day on Earth.

THE AGE OF THE EARTH AND FORMATION OF UNIVERSE



Luminosity can be defined as the total radiation emitted per second in all directions by a star, and it is expressed in units of solar luminosity, where our sun has a luminosity value of one. In order to find the luminosity of a star, the distance from the earth to the star must be known. This distance can be calculated for the closest stars using two measurements and some simple

algebra. To begin, an observer measures the position of a star against the background of more distant stars at two times that are six months apart; the observer can then calculate the apparent shift of the star in the sky, known as the parallax of the star. This information can be used, along with the known diameter of the earth's orbit, to find the distance from the earth to the star according to the following equation:

$$\text{Star Distance} = (\text{Diameter of Earth's Orbit}) / (\text{Parallax of Star})$$

By combining this information with the measured radiation emitted by a star, scientists are able to use the principle that the apparent brightness of a star is diminished by the square of its distance to calculate the star's stellar luminosity. Stellar luminosity values can be as small as 0.1 times the luminosity of our sun to as large as 60,000 times as luminous as our sun.

By: Navdeep XII B

OZONE LAYER AND ITS DEPLETION



The Ozone layer reduces harmful UV radiation reaching the Earth's surface. The Ozone layer is present in Earth's atmosphere (15-35km above Earth) in the lower portion of the stratosphere and has relatively high concentrations of ozone (O₃).

Ozone layer depletion is the gradual thinning of the earth's ozone layer present in the upper atmosphere. Ozone depletion also consists of a

much larger springtime decrease in stratospheric ozone around Earth's polar regions, which is referred to as the ozone hole.

1. The main cause of ozone depletion and the Ozone layer is manufactured chemicals, especially manufactured halocarbon refrigerants, solvents, propellants, and foam-blowing agents (chlorofluorocarbons (CFCs), HCFCs, halons)
2. The depletion of the ozone layer has harmful effects on the human health, animals, environment and marine life.
3. Studies demonstrate that an increase in UV-B rays causes a higher risk of skin cancer, plays a major role in malignant melanoma development, sunburns, quick ageing, eye cataracts, blindness and weekend immune system.
4. Direct exposure to ultraviolet radiations also leads to skin and eye cancer in animals.
5. UV-B rays negatively affect plants, crops. It may lead to minimal plant growth, smaller leaf size, flowering and photosynthesis in plants, lower quality crops for humans. And decline in plant productivity would in turn affect soil erosion and the carbon cycle.

By: Shubhangi Sharma XII B

21/08

12-C

DUENDE

AUGUST RELEASE

DESIGNED BY RAGHAV

World in Motion

- Bhavya

National News

- 1) Mizoram tried to construct bridge in our territory, stopped: Assam
- 3) Odisha To Sponsor Indian Hockey Teams For Another 10 Years: CM Naveen Patnaik.
- 3) Nirmala Sitharaman Launches National Monetisation Pipeline Plan Worth Rs 6 Lakh Cr



International News

- 1) Taliban takes over afghanistan completely. China blames it on US president Joe Biden's decision on withdrawal.
- 2 US Grants Pfizer Covid Vaccine Full Approval.
- 3) US Envoy Says No Hostile Intent Toward North Korea, Calls For Talks.



Sports News

- 1) India wins 7 medals at the tokyo Olympics, 2020, records the highest ever win.
- 2) Neeraj chopra brings first ever gold for India in olympic atheletics.
- 3) Lionel Messi leaves Barcelona after teo decades ,signs two year contract with paris saint-germain.



FOODIES

Chocolate Chip Cookies

-Tanveer

METHOD:

1. CREAM THE BUTTER AND THE SUGAR IN A BOWL TOGETHER
2. ADD THE EGG YOLK AND MIX TOGETHER AND ADD THEM IN THE BOWL AND MIX
3. SIFT THE FLOUR AND BAKING SODA TOGETHER AND ADD THEM IN THE BOWL AND MIX
4. ADD THE MILK AND CHOCOLATE CHIPS AND COMBINE UNTIL A DOUGH FORMS
5. CHILL THE DOUGH FOR ABOUT 15 MINUTES
6. SCOOP THE DOUGH AND PLACE ON A BAKING TRAY LINED WITH PARCHMENT PAPER, GENTLY FLATTEN THE TOPS OF THE COOKIES
7. BAKE IN A PREHEATED OVEN FOR ABOUT 11 TO 15 MINUTES



-Insiya

This is an emoji with a party hat and blowing rolls. Colorful paper scattered around his face. It is generally used to celebrate holidays, anniversaries or interesting occasions to express the emotions of celebration, cheer, and happiness. you want to party about it, do it! Send this emoji to show your excitement and eagerness to party hard.

BUZZING TECH

-Ankit

// Electric motorcycles and scooters are plug in electric vehicles with two or three wheels. In this the electricity is stored in a rechargeable battery.

OLA SCOOTERS:-

- // Top speed - 118km/hr
- // 0 to 40 km/h - 3.0 sec
- // RANGE - 181KM

OLA ELECTRIC



ART CORNER



-Tanvi



-Kanika



-Roopam Saini

Manage your Exam Stress

As per the CBSE's guidelines, the exams of classes 10th and 12th for the session 2021-22 will be held in two terms!

Double exams = Double stress! Students now have to study in detail and thorough understanding of the concepts would be required to perform well in exams. The exam stress will surely affect then students. So in order to cope up with the exam stress follow some tips below:

- Study at a calm and peaceful place
- Ask the teacher what to expect or what will be tested
- Create mind-maps
- Follow proper revision schedules
- Take short breaks in between to relax your mind
- And lastly, maintain a healthy body and healthy mind, eat and sleep regularly.

THE LOCKDOWN LIFE

THIS POEM WOW

-Khushi

THE LAST BOARD EXAM
SOCIAL MEDIA WE WERE TO SPAM
EXCITED FOR FAREWELL
EVERYTHING WAS PLANNED WELL
THAT WAS THE LOCKDOWN.
SILENCE IN EVERY STREET AND PARK
ALL WE COULD HEAR WAS THE DOGS BARK
FROM THE MORNING UNTIL THE NIGHT
WE ALL FACED BOREDOM INSIDE.
NO PARTY , NO FRIENDS
WEARING MASK BECAME A TREND
TOTALLY NO HOPE FOR LOCKDOWN TO END.
GRADUALLY WE STARTED TO ADAPT
TO THE 'ONLINE STUDY' ACT
NOONE WAS INTERESTED AND WE ALL FELT
DISGUSTED
INDEED THE SCHOOL WAS FUN
THAT WE MISS A TON
A PLETHORA OF MEMORIES OF SITTING IN THE
CLASS
DRINKING WATER IN A BOTTLE INSTEAD OF
GLASS.
SHARING OF FOOD ENLIGHTENED OUR MOOD
THE RECESS BELL WAS A MELODY, BUT WE HAD
OUR TIFFINS ALREADY
NEVERTHESS IT WAS FUN AS WE HAD A
GROUND TO RUN.
DOING WORK A MINUTE BEFORE SUBMISSION
WAS NOT LESS THAN A MISSION.
ROAMING IN THE CORIDORS TO CHANGE
SUBSTITUTE WAS
THE WAY WE GOT TO KNOW OUR INSTITUTE.
BEGGING FOR P.T PERIOD WAS ALL WE DID,
TO EVERY TEACHER LIKE A KID
THIS IS JUST A SUMMARY I COULD PEN DOWN
OTHERWISE A BOOK CAN BE WRITTEN DOWN
BECAUSE THE MEMORIES ARE VAST
AND FOREVER IS THE TIME FOR WHICH THEY
LAST.
IN LIFE WE FACE MANY FEARS,
WE ENTER WITH A CRY AND LEAVE WITH TEARS,
WITH MIXED EMOTIONS.
AND ONLY THANK OUR SCHOOL FOR SUCH
BEAUTIFUL YEARS.
ALL WE CAN DO IS PRAY AND KEEP HOPES
UNTIL THE CORONA GOES

THIS POEM WOW

Banking frauds

-Tanisha

Fraud, generally speaking, is an act committed with an intention to deceive in order to gain undue advantage of someone.

In order for it to be fraud in the legal sense the person on whom the fraud was sought to be committed should have necessarily fallen prey to it. If an attempt of fraud is made but the person concerned was not actually deceived, it is not 'fraud' as understood legally.

Bank fraud is a fraud committed on banks mainly by fraudulent representations using false documents. Bank fraud concerns all citizens. It is a very sensitive issue as it affects the public faith on which the whole Banking system is pre-dominantly based.

Bank fraud includes all sorts of misappropriations, embezzlements, manipulations of negotiable instruments like cheques, bank drafts, bills or statements of accounts, securities etc. With the boom in banking business, bank frauds are also on the rise. Bank fraud is covered under Indian Penal Code. Cheques are a major area where frauds are committed by putting counterfeit signature on the cheque.

This is probably the most common bank fraud committed. Another kind of fraud is the hypothecation fraud, wherein money is fraudulently obtained against some kind of security. A fair economic system requires a fair financial system with public confidence bestowed on it. Several preventive measures can be taken to avoid it e.g., Right recruitment, Eternal alert etc.

CLASS 12 D // APRIL - AUGUST



Sachetan स्वरूप

NEW SESSION
NEW HOPE
LET'S SMASH CORONA
ME AND YOU

ACKNOWLEDGEMENTS

The editorial team thanks Madam Principal, Mrs. Gulshan Kaur for providing us with the opportunity to express ourselves creatively.

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We thank our class teacher Ms. Divya Mishra for her constant support and inputs.

Regards:

Rupinder Bains | Pranjal Chauhan

About the title:

Sachetan स्वरूप

Portraying the blended culture of today's youth, the magazine has been named "Sachetan स्वरूप" following both Devnagri and Roman scripts. Sachetan means rational and स्वरूप means form. It encourages rational thought and such content finds place in our magazine.

Writer's Corner

A Red Herring

Making my way downtown

I'm walking fast

Holding a banana brown

I'm getting late for some task

Walking faster

I don't know what the banana is for

All I know is its very important

Enough to jaywalk for

What's that over there?

It's my aunty Ethel at the street corner

"Hello haven't seen you in 20 years!

I'll walk you to work" she says, poker faced

Ugh, why? She walks very slow

She says "Be careful with that banana"

Laughing I say "Yes, I know

It's a very important banana"

Finally the street corner

What in god's green earth?

Another elephant blocking the road

What's the municipality doing in Manchester?

It was at that moment I realized

In Manchester, elephants don't exist

Even after Brexit

I must be dreaming this.

-Rupinder Bains



Hello Piece Of Art!

These days everything seems no less than art to me. The birds, the flowers, the bed, the chocolate and even you, everything is art for me. There was a time when I didn't even want to look at my art supplies and now the moment they get finished, it seems as if everything has stopped. To be honest, I never knew I could paint! I always thought of myself as an average student made for nothing but learning the subjects and avoiding math as much as I can. Maybe you too thought of yourself in the same way and maybe you still think the same. If you still think of it in the same way, then there's a problem. The problem is not with you but your mentality. No, I'm not a psychologist who's going to talk to you about life and your attitude towards it or something like that. I just want to convey what I've personally gone through. "Gone through" does not refer to a sad, depressing moment or something which left me shattered. It refers to one of the "mantras" I've developed for myself in order to remain happy. I've started to discover myself. That's what I'm asking all of you to do. Start discovering yourself. It is not possible that you are just an average student born for scoring marks. NO IT IS NOT! Everyone is unique. Unique in their own sense. Some dance well, some sing well, some maybe good at handling situations and some maybe good at making people feel comfortable around themselves. Talent in my dictionary, does not refer to something which is your specialty or something if exploited properly can be used to earn money. For me, it's something which helps you to discover yourself. Something which helps you get over everything you want to. It's something which uses "you" to create a better version of "you". We say "life gives everyone a second chance" but this is true only when you fail the first one. And to fail that, it's important to grab it first. Open your heart, your eyes, your mind and start looking into you. Start exploring you. You don't need a passport to travel there. There will be ups and downs. No matter if you do something very big like creating your own track or something very small like bringing a smile on someone's face, if this is what your soul suggested you to do then in my words it would be "a piece of art created by another piece of art".

- Sakshi Goyal

The Art Hub



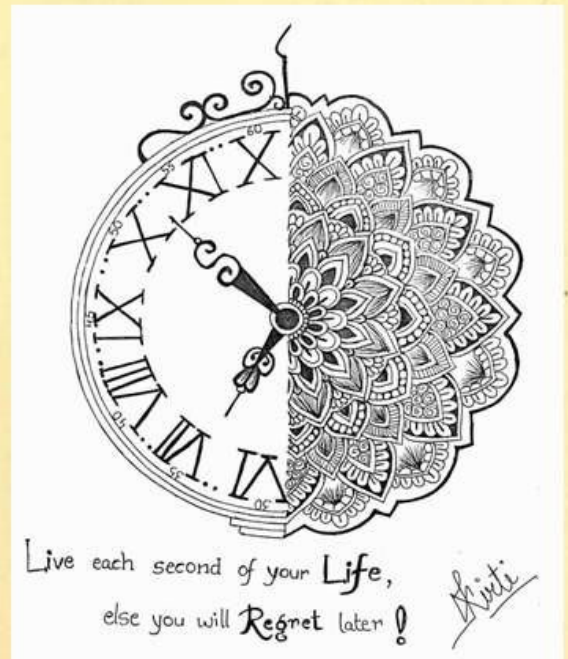
- Niharika Negi



- Riyanshi Goyal



↓ Siya Singla ↑



Live each second of your Life,
else you will Regret later !

Kirti

- Kirti Naidu