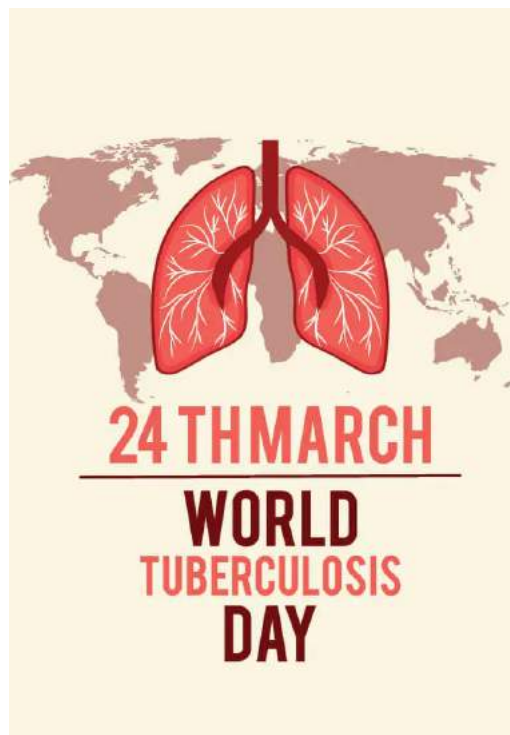
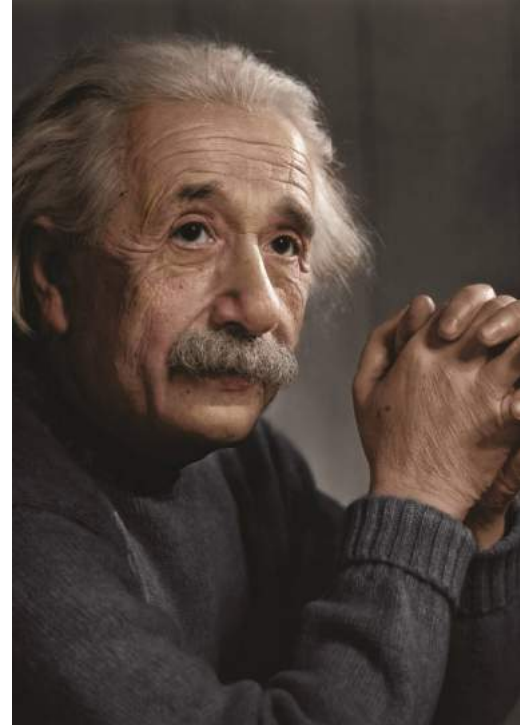
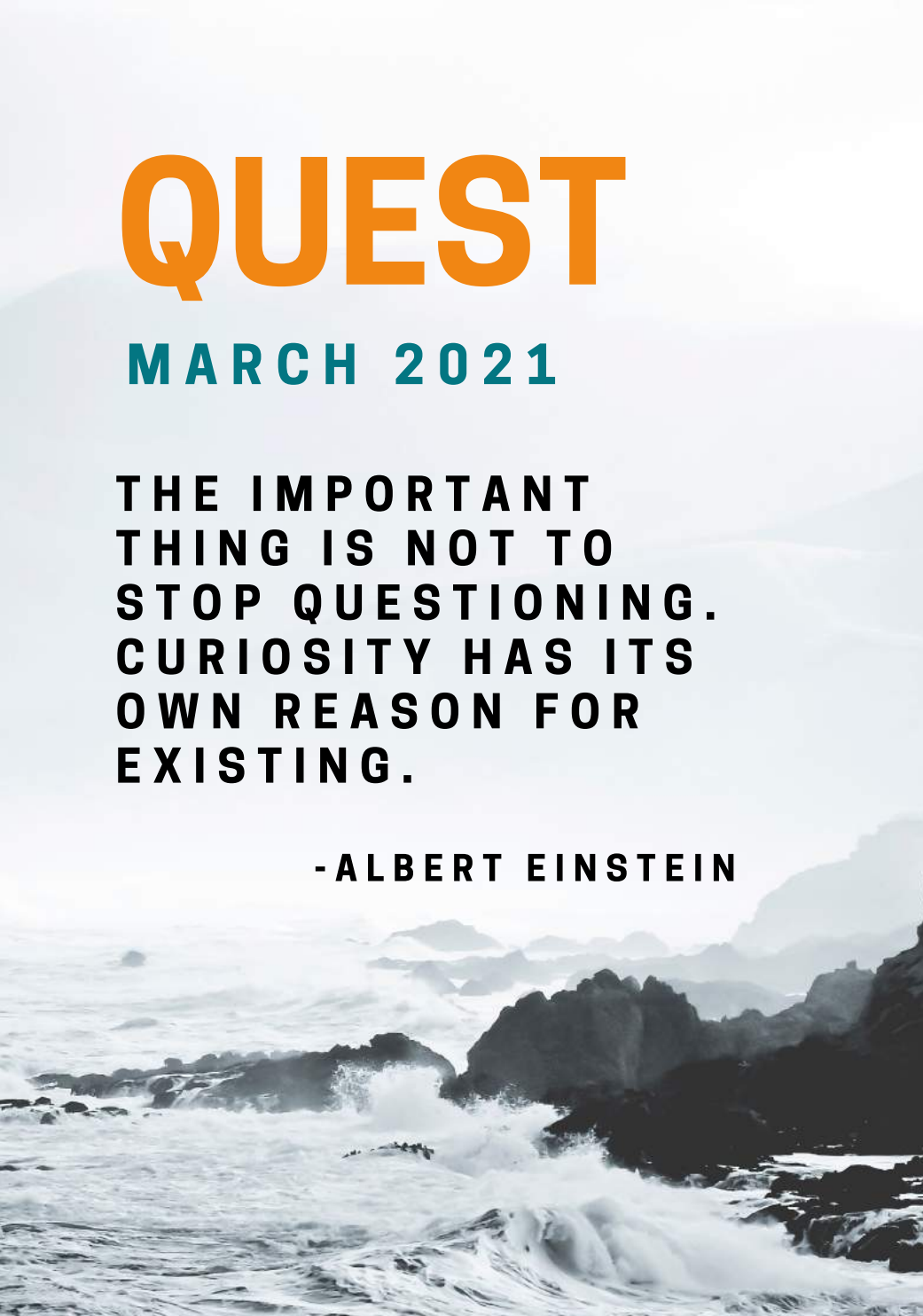


QUEST

MARCH 2021

THE IMPORTANT
THING IS NOT TO
STOP QUESTIONING.
CURIOSITY HAS ITS
OWN REASON FOR
EXISTING.

-ALBERT EINSTEIN



CONTENTS

02

TEACHER'S CORNER

-SPECIAL MATHEMATICS HOLIDAYS

-EARTH HOUR

06

STUDENT'S CORNER

-HEROIC CARE WARRIOR

-A BONEY AFFAIR: POEM

-ALBERT EINSTEIN: BIOGRAPHY

-PYTHAGORAS THEOREM

-SOLAR APPRECIATION DAY

14

ART GALLERY

16

VIDEO GALLERY

18

BRAIN TEASERS

19

SUDOKU



FEATURED

HEROIC CARE WARRIOR: A SMART COVID FIGHTER ROBOT

A robot made by Pari Mittal (S1-D) and Armaan Mittal (M2-A) fetched them the second prize in "Tech-Spardha" competition organized by Bal Bharati School, Noida.

06



FEATURED

SUSTAINABLE DEVELOPMENT: MINDSKETCH

Vaibhav Ranjan (M3-A) and Shivang Dagar (M3-A) fetched the second prize for the topic "Sustainable Development" in ATL Tinkerfest video making competition organized by Manav Sthali School.

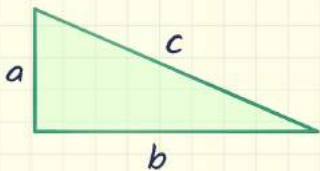
13

SPECIAL MATHEMATICS HOLIDAYS

- BY MR. VASUDEVAN

Mathematics is essential in more ways than we can count. The days where we celebrate mathematics or famous mathematician's contributions are termed as special mathematics holidays. As mathematics is not everyone's cup of tea, most people do not know there are such special days to celebrate. Different countries celebrate different events on these days.

PYTHAGOREAN THEOREM DAY



$$a^2 + b^2 = c^2$$

To mark the significance of this revolutionary discovery, Pythagorean Theorem Day is celebrated on days that align with the formula $a^2 + b^2 = c^2$.

- 15th of August, 2017.
[08/15/2017 ===== 82 + 152 = 172]
- 16th of December, 2020
[16/12/2020===== 162 + 122 = 202]

FIBONACCI DAY

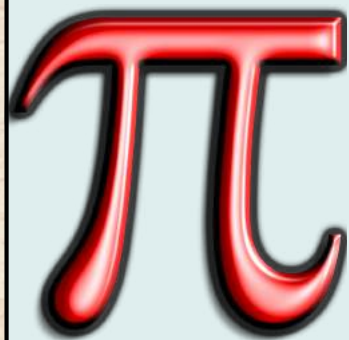


Nature paints its own masterpieces

On this holiday, we celebrate the Fibonacci sequence, a series of numbers where the third number is a sum of the first two numbers before it. Example: a sample Fibonacci sequence beginning with 1 : 1, 1, 2, 3, 5, 8, 13, 21, and so on. Fibonacci Day is on the 23rd of November (11, 23) as represented by the first four numbers on the sequence, beginning with 1.

...contd.

PI DAY



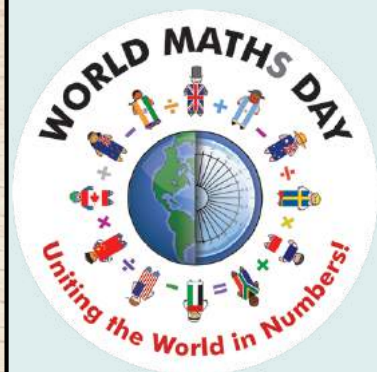
Pi is a ratio between the diameter and circumference of a circle. March 14th is the date set for this event, with 3.14 representing the first three numbers of an almost endless sequence of integers in the Pi sequence.

NATIONAL MATHEMATICS DAY



Srinivasa Ramanujan was a famous mathematician of Indian origin. Ramanujan was born on 22nd December late in the 19th century - in 1887. To celebrate his life and contribution to mathematics, the 22nd December was declared National Mathematics Day.

WORLD MATHS DAY



This day, more a competition event for school children aged 4-18, than holiday, is usually on the first Wednesday of March each year.

The chief aim of World Maths Day is to nurture the interest in mathematics as a science and to encourage people to be part of mathematics-related fields.



EARTH HOUR, 2021

EARTH HOUR
27 MARCH 8:30PM #CONNECT2EARTH

Lights off Stars on



SATURDAY, 27 MARCH 2021,
8:30-9:30PM

Pledge to switch off this
Earth Hour

-BY MS. ARVINDER KAUR

- Earth Hour is one of the world's largest grassroots movements for the environment. It is an annual global event organized by WWF (World Wild Fund for Nature) encouraging individuals, communities, corporates, and households to turn off their lights to show support for the fight against climate change and commitment towards a better planet.
- Every year on the last Saturday of the month of March from 8:30 p.m. to 9:30 p.m., millions across the world choose to turn off their lights for one hour to celebrate their commitment to the planet.
- It also aims to spark global conversations on protecting nature, as well as ensuring our health, prosperity, health and survival. All these are challenges affecting the world that need to be addressed immediately, without introducing politics.
- Earth hour is an important staple of environmental awareness and consciousness. Reducing your carbon footprint, both in your personal life and in the workplace, is essential in order to create a robust and environmentally safe world. Preserving the natural heritage of our planet is what Earth Hour is all about.
- By becoming environmentally conscious through Earth Hour, many companies and individuals have made incredible changes to their lifestyles in order to support the need for change.

...contd. Page 4

Reasons Why Earth Hour is So Important:

- The consumption of fossil fuels at a rapid pace in the last few decades has taken a toll on the environment. Global warming, climate change, deforestation, landfills, air, water and soil pollution, are some of the problems from which our environment is suffering.
- Earth Hour is all about taking steps towards change. Our climate is changing every single day, and it's becoming harder and harder to forget that many of our daily choices have a dramatic effect on the world we live in.

Make a difference

Dear children, let's pledge to take part in Earth hour and show our support for climate change. By switching off the lights at our home for one hour, we can make a substantial difference in energy consumption and help reduce the effect of global warming. This will be our small but very effective step to help protect our planet.



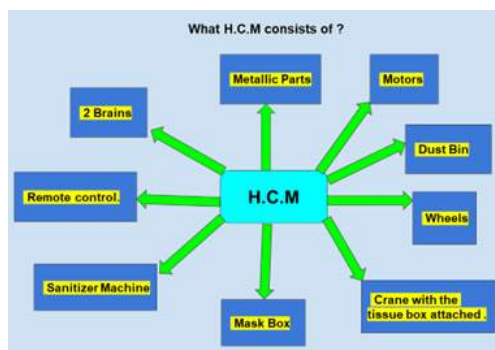
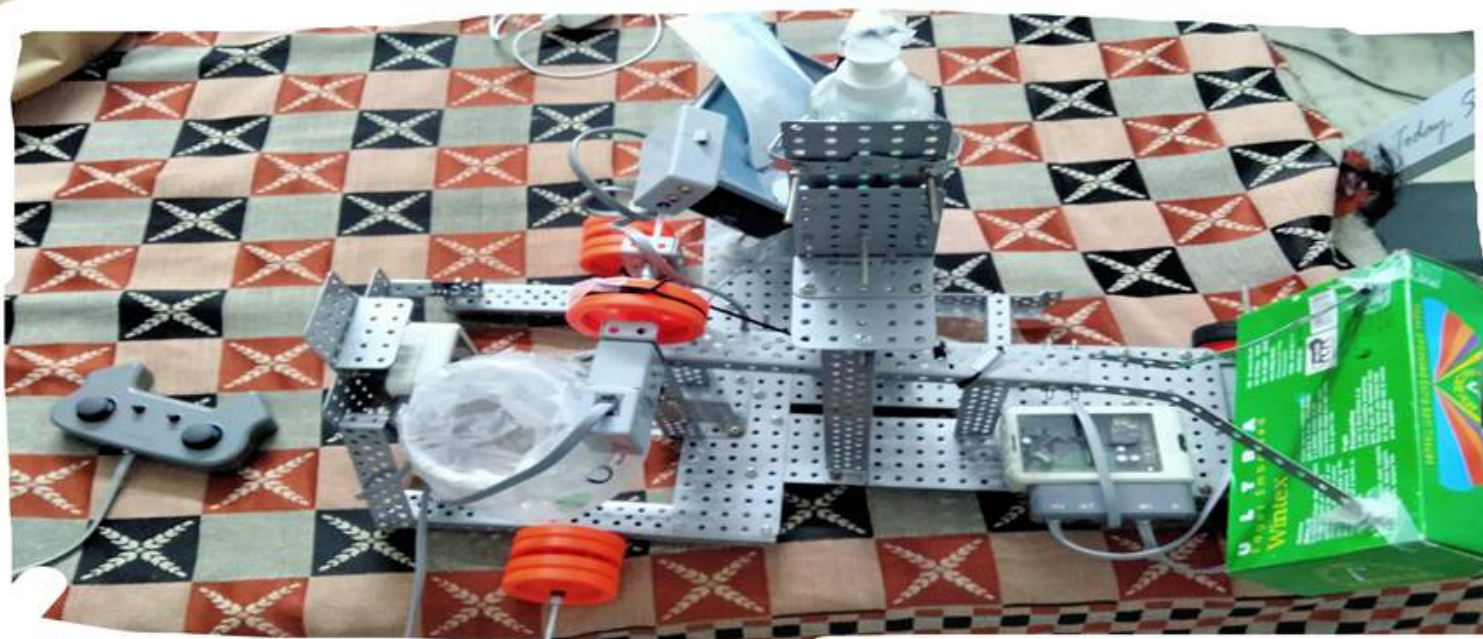
#earthhour



H.C.M: Heroic Care Warrior

Smart Covid Fighter Robot ☐

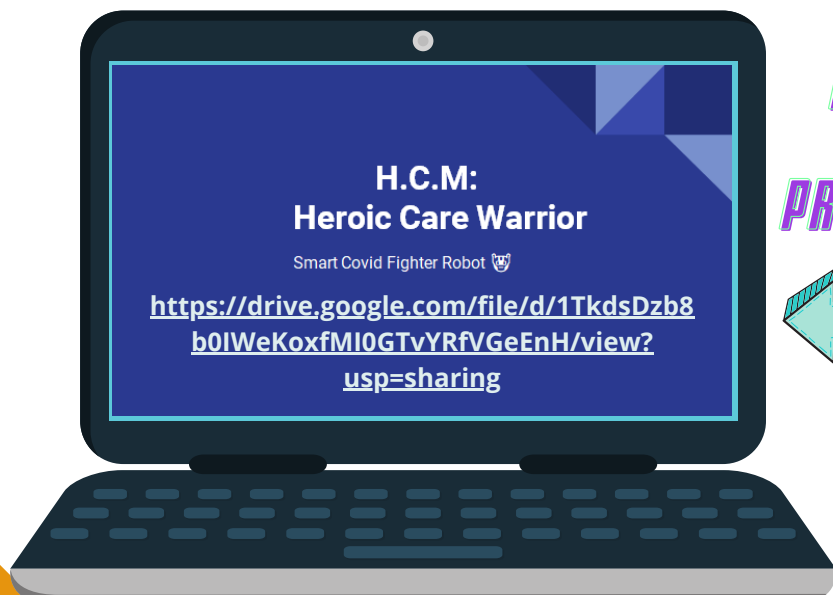
-BY PARI MITTAL (S1-D) AND ARMAAN MITTAL (M2-A)



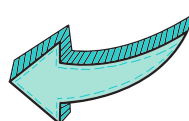
[Link for video on working of robot](#)



<http://drive.google.com/file/d/1c95zjO12P9J3GxiCGTI6P3YIjrY-ggxN/view>



**POWER-POINT
PRESENTATION LINK**



A BONEY AFFAIR!

-BY SHREYAS MISHRA, P5-B

There are 206 bones, chum!

Let's start with the skull or cranium.

A bit down is the smallest and lightest bone stapes,

It helps you hear everything with ease!

The amazing rib and scapula the shoulder-bone,

**As supporters of important processes they both are
known.**

The breastbone sternum and humerus,

Protects delicate organs numerous.

Ulna the lesser forearm and main forearm radius,

To memorize the skeleton don't make a fuss.

The hip-bone pelvis and femur the thigh-bone,

The strongest and longest it's known.

There's patella the knee cap and tibia,

It's the shin-bone like Africa's Namibia!

Fibula the calf-bone and tarsals,

This song already lulls.

Next comes the phalanges,

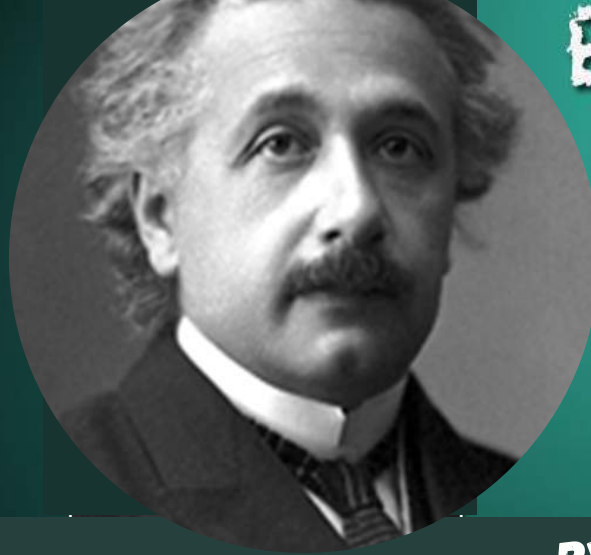
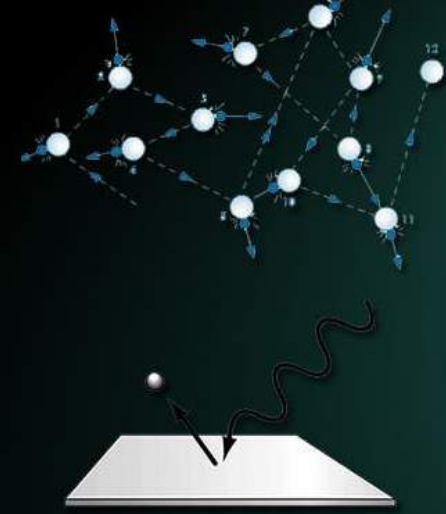
It'll help you for ages.

Babies have bones three hundred,

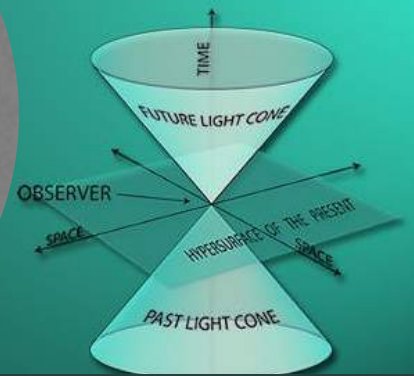
That's how they are made.

Adults have 206 because they get fused,

So pals don't get confused!



$$E=mc^2$$



-BY ACHINT KAUR, SI-D

ALBERT EINSTEIN

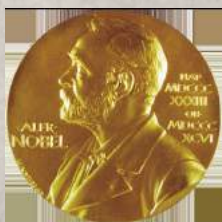
ALBERT EINSTEIN WAS A GERMAN-BORN THEORETICAL PHYSICIST WHO DEVELOPED THE THEORY OF RELATIVITY, ONE OF THE TWO PILLARS OF MODERN PHYSICS.



BORN: 14 MARCH 1879, GERMANY

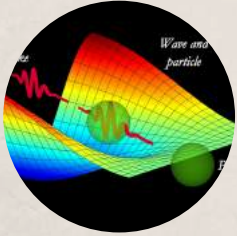


DIED: 18 APRIL 1955, NEW JERSEY, UNITED STATES



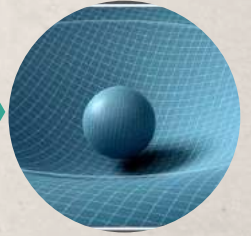
NOBEL PRIZE: IN 1921 "FOR HIS SERVICES TO THEORETICAL PHYSICS, AND ESPECIALLY FOR HIS DISCOVERY OF THE LAW OF THE PHOTOELECTRIC EFFECT."

SIGNIFICANT CONTRIBUTIONS

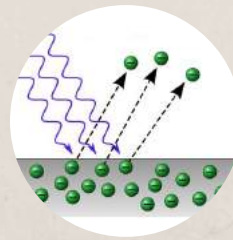
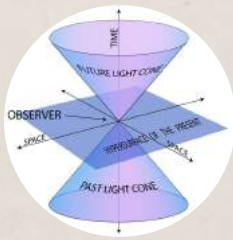


QUANTUM THEORY OF LIGHT.

GENERAL THEORY OF RELATIVITY



SPECIAL THEORY OF RELATIVITY

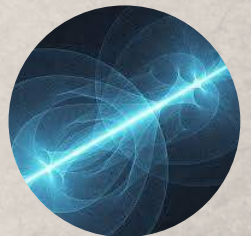


THE PHOTOELECTRIC EFFECT

6.0221415×10^{23}

AVOGADRO'S NUMBER

WAVE-PARTICLE DUALITY



SPACE TIME

-PPT BY ACHINT KAUR, S1-D

<https://drive.google.com/file/d/1zo2zfgeJlz3b5imq8Qz378F0kz8QxS5B/view?usp=sharing>

PYTHAGORAS THEOREM

-BY BHAVY DUGAR, M3-D



**PYTHAGORAS TEACHING
HIS THEOREM**

Pythagoras was probably the greatest mathematician ever. His Pythagoras theorem and triplet were a big hit for right angled triangles. Although many books say that great Indian mathematician Baudhyana had discovered it decades before Pythagoras showed it to the world, but nevertheless, his formulae are still used in great numbers.

The theorem is that $(a^2)+(b^2)=(c^2)$ where a and b are legs which are forming the 90 degree angle and c is the hypotenuse or the longest side of the triangle. Pythagoras also created Pythagorean triplets which is: (n^2+1) can be called the first side (n^2-1) can be the second side and $2n$ the last side. It is obvious that (n^2+1) is the largest thus it is the hypotenuse and both the others are the legs.

...contd

Let us verify the theorem as well as the triplets.

$$(n^2-1)=a, 2n=b, (n^2+1)=c.$$

$$((n^2+1)^2)=((n^2-1)^2)(2n^2)$$

$$(a^2+b^2=c^2)$$

$$n^4+1+2n^2=n^4+1-2n^2+4n^2$$

as n^4+1 is

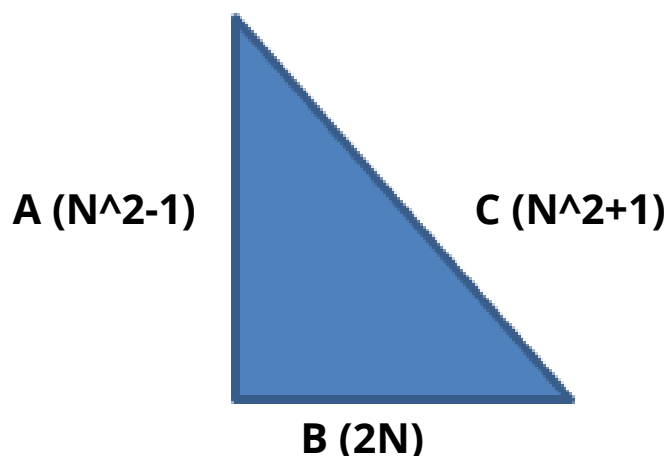
common on both sides

we will cancel them.

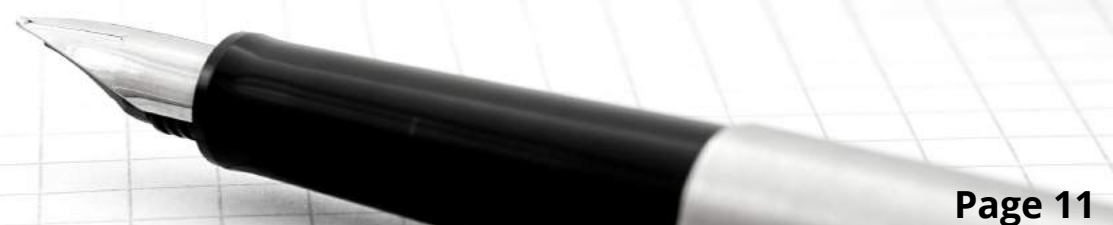
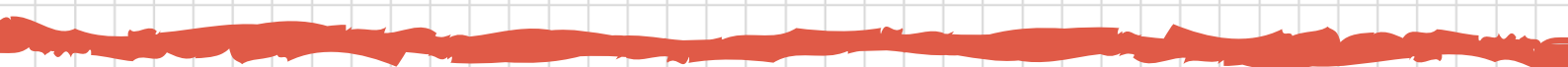
$$2n^2=(-2n^2)+4n^2$$

$$2n^2 = 2n^2=4n^2$$

$$4n^2=4n^2$$



I have created a shorter method for $a^2 + b^2$; which is, $x^2+2a(a-x)$ where x is the difference of a and b . Here we can generalize that square of the difference of the two sides and the double of the larger side multiplied with the sum of the larger side and the difference of the two sides.



Solar Appreciation Day

10th March



-BY MS. ARVINDER KAUR

SOLAR APPRECIATION DAY is celebrated to raise awareness on the value of solar energy, celebrating both sustainability and energy independence on a global scale. Solar energy is radiant light and heat from the Sun that is harnessed using a range of ever-evolving technologies such as: solar heating, photovoltaics, solar thermal energy, solar architecture, molten salt power plants and artificial photosynthesis. Solar technologies can harness this energy for a variety of uses, including generating electricity, providing light or a comfortable interior environment, and heating water for domestic, commercial, or industrial use.

WHY USE SOLAR ENERGY?

- It is inexhaustible.
- Cleanest and most abundant renewable energy source available.
- Reduces the amount of fossil fuels you're using.
- Reduces your carbon footprint significantly.
- Saving money and saving the planet.



Solar Flower: Intelligent Energy



The Smart Flower is an intelligent "sunflower" of solar panels that "blooms" at sunrise and tracks the sun from east to west, just like sunflowers do to maximize sun absorption. It uses advanced robotics and automation to intelligently track the Sun, making up to 40% more energy than traditional stationary solar panels. At sunset, smart flower will automatically fold up and clean itself to maintain peak solar utilization.

<https://kahoot.it/challenge/0945247?challenge-id=e8e6ed04-0fc2-4ea3-940d-46ec7d653240> 1610444708579

https://drive.google.com/file/d/14M5GF5_uOYeBwClr6PlNjtJ3Vonpjn-a/view?usp=drivesdk

Play a kahoot called "Green Energy Sources"
-BY PRITHVI, S1-B

"Sustainable development"
-BY VAIBHAV RANJAN AND SHIVANG DAGAR, M3-A



- BY FAWAZ, S1-B

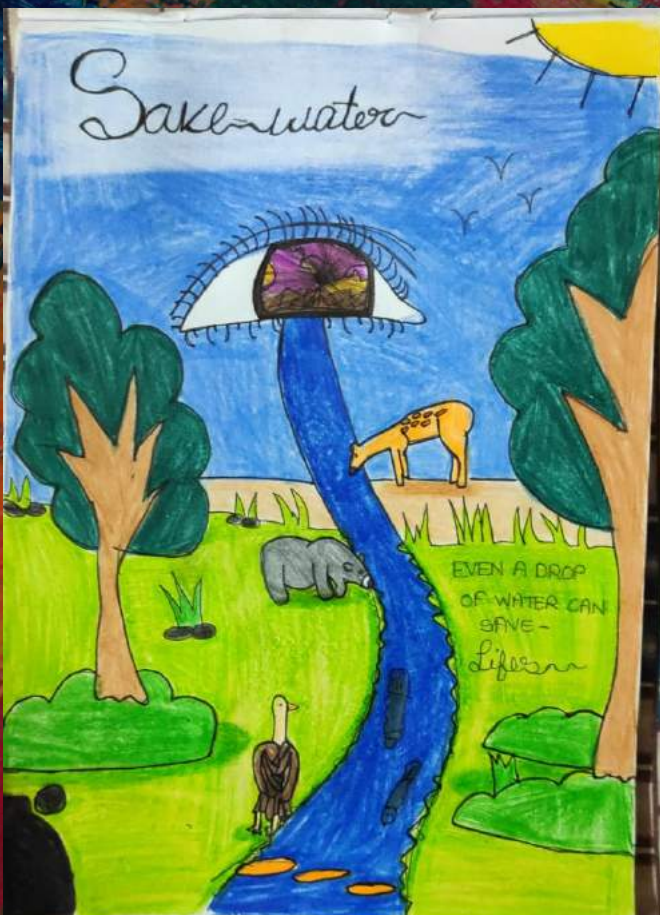
ART GALLERY



AKALSIMARJOT SINGH, M2-A



AMBIKA NAGAR, M2-A



PREETI SAGWAN, M2-B



MANSY SINGH, M2-C

ART GALLERY



YATISH MALASI, M2-C



PRIYAL SETHI, M2-C



ANISHKA MISHRA, M2-A



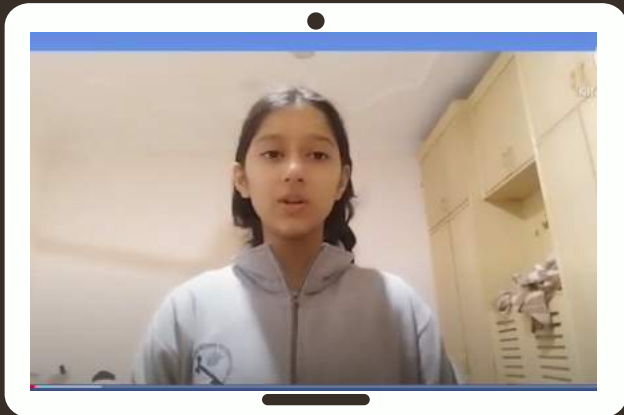
NITYA BANSAL, M2-C



NAME : YUG GUPTA
CLASS : M2, D

YUG GUPTA, M2-D

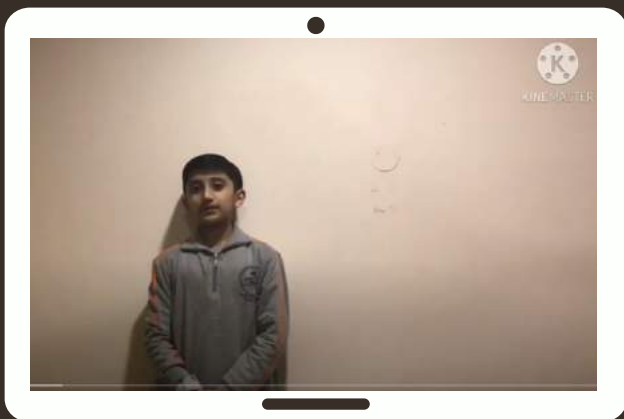
VIDEO GALLERY



HEROIC CARE EDUCATION
-BY PARI MITTAL, S1-D

<https://youtu.be/vM66qcpPaT0>

<https://appsgeyser.com/api/track/redirect?url=https%3A%2F%2Ffiles.appsgeyser.com%2FHeroic%2520care%2520Education%2013226140.apk%3Fsrc%3Dpage>



SAFE DISTANCE ROBOT
-BY ARMAAN MITTAL, M2-A

<https://youtu.be/4CX2CHh5I9I>

https://docs.google.com/presentation/d/1oPuWLGcZYaTzBe3qDBx1dVUdqrBc_dOGhldV5Fnlh0/edit?usp=drivesdk



CANON USING SYRINGE
-BY TANUSH YADAV, M2-D

https://1drv.ms/p/s!Al2qpuiB4gf6gQmhl_uBhPlzGsovW

<https://drive.google.com/file/d/1ZBH-RhqXJlki7ByLsRtX8DNqXvvBJpmQ/view?usp=sharing>

https://drive.google.com/file/d/1C0FEmbu8ci5pubgEn_H1cJv0glwajY3E/view?usp=sharing

VIDEO GALLERY



CANON USING PERFUME & SYRINGE
-BY GURVEER SINGH CHOWDHURY,
M2-D

https://drive.google.com/file/d/1WWxT46YjcPPx_FZfOq52ujMLMkcpj1kJv/view?usp=sharing



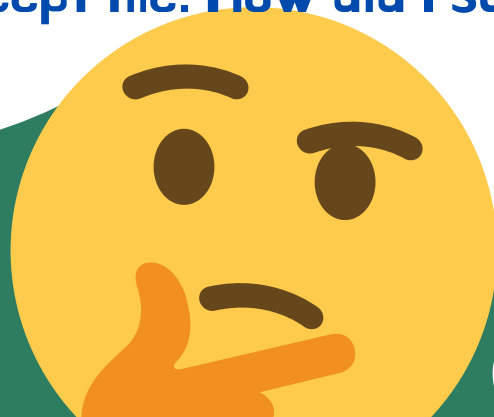
WATERFALL MODEL
-BY TANVI DUGAR, M2-D

https://drive.google.com/file/d/1Zd670NeP_y5GeujczPhver_a8AVuXLk4/view?usp=drivesdk

BRAIN TEASERS

-BY MR. VASUDEVAN

1. I am taken from a mine, and shut up in a wooden case, from which I am never released, and yet I am used by almost everybody. What am I?
2. Turn me on my side and I am everything. Cut me in half and I am nothing. What am I?
3. A red house is made from red bricks. A blue house is made from blue bricks. A yellow house is made from yellow bricks. What is a green house made from?
4. An elevator is on the ground floor. There are four people in the elevator including me. When the lift reaches the first floor, one person gets out and three people get in. The lift goes up to the second floor, 2 people get out, 6 people get in. It then goes up to the next floor up, no-one gets out but 12 people get in. Halfway up to the next floor up the elevator cable snaps, it crashes to the floor. Everyone else dies in the elevator except me. How did I survive?



SUDOKU

-BY MR.VASUDEVAN

			2	6		7		1
6	8			7			9	
1	9				4	5		
8	2		1				4	
		4	6		2	9		
	5				3		2	8
		9	3				7	4
	4			5			3	6
7		3		1	8			

SOLUTIONS

BRAIN TEASERS ANSWERS

1. Pencil lead
2. The number 8
3. Class
4. I got off on the first floor

SUDOKU [SOLVED]

7	6	3	4	1	8	2	5	9
2	4	8	9	5	7	1	3	6
5	1	9	3	2	6	8	7	4
9	5	1	7	4	3	6	2	8
3	7	4	6	8	2	9	1	5
8	2	6	1	9	5	3	4	7
1	9	7	8	3	4	5	6	2
6	8	2	5	7	1	4	9	3
4	3	5	2	6	9	7	8	1

**"WHAT WE KNOW IS
A DROP, WHAT WE
DON'T KNOW IS AN
OCEAN."**

-ISAAC NEWTON

