The Qurious Atom

Dream,
Draw,
Design,
Discover

by the **The KK Times**

Hans Wilhelm Geiger

Hans Wilhelm Geiger invented the Geiger counter used to measure radioactivity. He was born on 30th September 1882.

ABOUT THE COVER

This is the second edition of the Qurious Atom. It is themed on plants and their use. We have tried to capture all about plants and how they feel. A woodcutter is also on the page to show that we should not cut trees as it can hurt them.

The Qurious Atom | Issue 2 | 30 September | Monthly | Ghaziabad

Note from the Editor:

Hey Guys, it's me Kanira. This is the second edition of The Qurious Atom: A Science Magazine for young scientists like you. This time the theme is "Plants of Life". There are also articles on new topics like Geothermal Energy. Be sure to also read the story about Jungle Grove School. Check out our amazing experiment about plants and play a fun game of "Beat the Germs"! For cooking purposes check out the science behind shapes of the pan. Keep sending entries for "Be a Scientist" and "Time Machine". Read the biography of Albert Einstein and our amazing gravity song. Play games, read stories and articles, think and create with the Qurious Atom

Next Issue of The Qurious Atom:
31 October 2023
Theme : The Amazing World of Sounds

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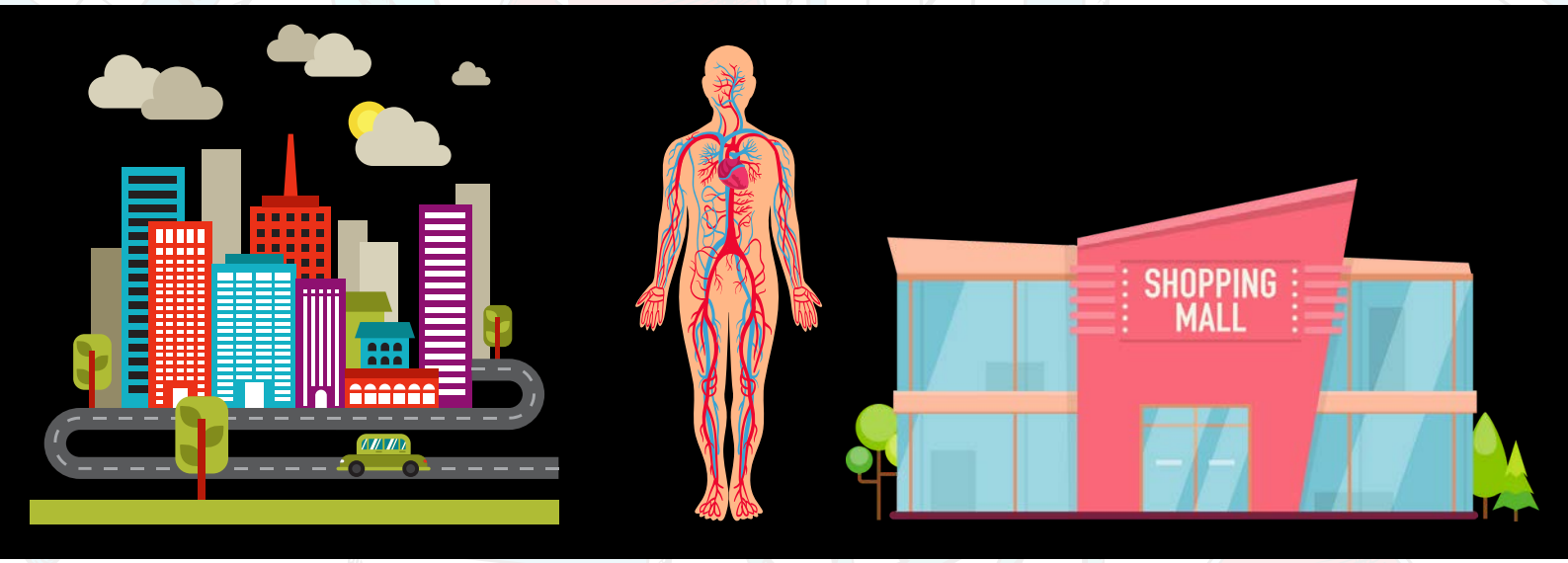
Save Plants, Save Life

Trees give us many natural resources and products that help us in our daily lives. Some examples are- pencil, paper, gum, furniture, rubber, etc. One of the most important things trees give us is oxygen. In our lives, trees are very important. So we must plant a tree whenever we get time. We should also encourage people not to cut trees. Did you know, that millions of trees are cut down every year to make 25 billion chopsticks? So plant a tree to save Earth, plant a tree to save us.

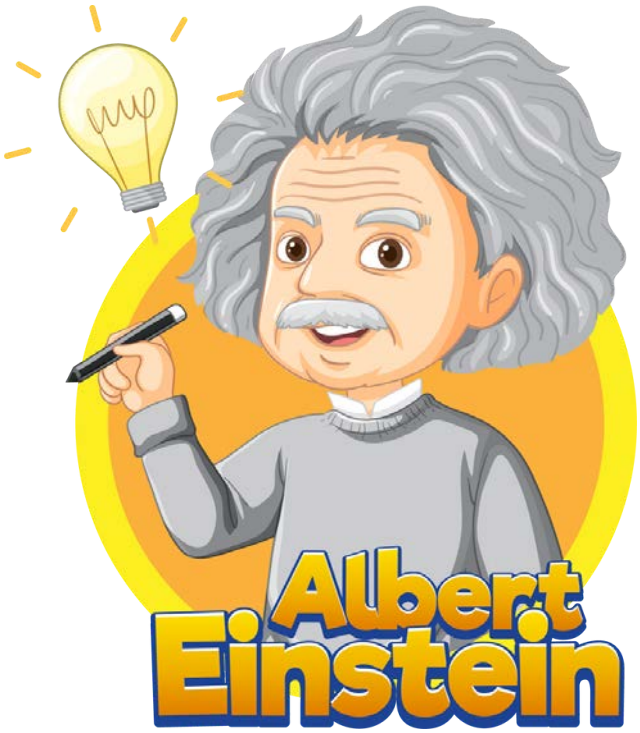


The City in our Body

Our body is like a tiny city. The heart is like a tiny petroleum pumping the blood. The lungs are our factories releasing air (Not the Smoky Type). The kidneys, well they are like our water purifier, but instead, they filter blood. The blood vessels spreading round our body are the roads and paths for the citizens (blood cells). Moving on to our stomach it mixes our food chewed with our mouth into acid. It is kind of like a community of gardeners working together to make waste into compost. Our intestine works hard to digest food.

Fun Fact- Our small intestine is almost as long as a football field. But now you must be wondering, what is our mall? Well, that is our brain working hard to think and multitask as all the shops and restaurants in the mall. So you see, our body is a large city with everything needed for healthy living.

Play a fun game To Beat The Germs! with your friend. Get a printed copy, cut out the germs and vaccines, and start playing.



Science

REBEL

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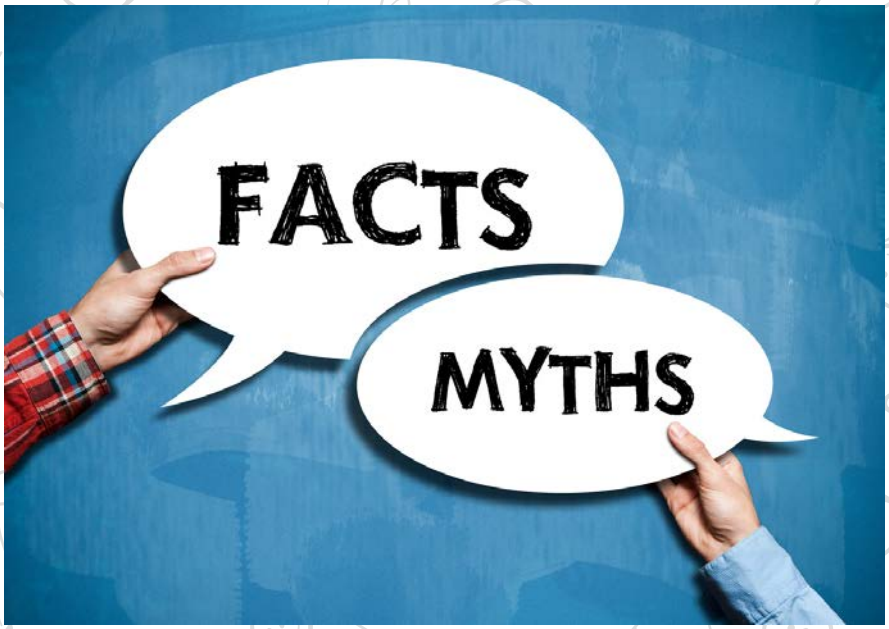


We begin a section from this edition where we share facts and myths upon one chosen topic.

FRUITS & VEGETABLES

MYTH

- Organic fruits & veggies are more nutritious.
- Dried fruits are just as healthy as a fresh fruit.
- Juicing is a good way to get nutrients from fruits & veggies.
- Eating fruits is healthy on empty stomach.
- Imported and exotic fruits & veggies have better nutrients.

FACT

- Regular grown fruits & veggies have same nutrients.
- Dried fruits are calorie and sugar concentrated than fresh, whole fruits.
- Juicing removes fibre and some nutrients from whole produce and can have added sugars.
- Eating fruit is healthy any time of the day.
- Local & seasonal produce is actually healthier.

ANIMAL KILLER

(Extinct Animals Edition)

WHAT was the Sabre Tooth Tiger?

The Sabre Tooth Tiger. Oh my gosh it was like totally alive when it was freezing cold, you know, during the last ice age! Amazing right? It showed up like a zillion years ago, you heard me right, 16 million years ago. But alas, it went bye-bye 10,000 years ago. Sad face! This funky cat was a bit shorter than a lion, but wayyyy heavier, and had teeny tiny legs and a boop-worthy bobtail. So cute! And get this, it had these humongous fangs (two huge canine teeth) that were like as long as 18 cm. Yikes! The Sabre Tooth Tiger was super into meat. Like, it would chow down on mastodons, bison, and even horses! So fierce! And what's more, is that tons of fossils of these cool cats have been found in North America and South America. How rad is that?

WAS T-rex nature's greatest killer?

Tyrannosaurus rex, that big, bad carnivorous dinosaur we all know, would totally crush any animal we have today! But hold on to your hats, folks! Scientists in Argentina found an even bigger predator, like seriously gigantic! It's called Gigantosaurus, and get this, it's a whopping 20% larger than the T-rex! This mighty beast evolved to hunt down the enormous Argentinasaurus. Can you believe it? We've got a supersized dino on our hands, folks!

The Curious Chronicles of Jungle Grove

Ch 1- Rainforest Wonders: Mandy the Monkey's Science Adventure 🐵🧪🌈🦝

Once upon a time, in the heart of Delhi NCR, there was a curious little monkey named Mandy. Mandy was not your ordinary monkey; she was a student at the Jungle Grove School, where animals of all kinds came to learn and explore.

One sunny morning, as the students of Class IV swung from tree to tree, their teacher, Ms. Wendy Wolf, gathered them around. She held up a school newsletter called "The Qurious Atom" with a picture of an atom wearing a graduation cap on the cover. "Listen up, my little scientists!" Ms. Wendy exclaimed. "We have a special project today. Each of you will choose a topic from 'The Qurious Atom' to research and present to the class." Mandy, being the curious monkey she was, eagerly grabbed the newsletter and started flipping through the pages. She found an article about the wonders of the rainforest and decided that would be her topic. With a determined look in her eyes, she chattered excitedly to her friends about what she was going to discover.

STORY

The next few days were a whirlwind of research and preparation. Mandy and her classmates worked together, gathering leaves, twigs, and rocks to create a mini rainforest diorama. They even painted tiny animals on little pebbles to place inside their project. Finally, the day of the presentation arrived. Mandy and her class stood in front of Ms. Wendy, who was sitting at her desk, eager to see what they had prepared.

Mandy was chosen to go first. With a leafy backdrop and a few twirls of her tail, Mandy began, "Ladies and gentlemen, today I'm going to talk to you about the incredible world of the rainforest!" She then explained how rainforests are home to countless species of animals and plants, and how they help maintain the Earth's climate. Mandy's classmates chimed in, adding their own bits of information, and showing off their rainforest diorama. They even had a recording of jungle sounds to make it feel more real. Ms. Wendy Wolf was thoroughly impressed by their effort and knowledge. She smiled and said, "Well done, class! You've truly embraced the spirit of exploration and learning."

After all the presentations were done, Ms. Wendy announced the scores, and to everyone's delight, Mandy had earned the most marks for her informative and engaging presentation. Mandy was overjoyed and couldn't stop chattering about it to her friends. They all swung from branch to branch, celebrating their success, while Ms. Wendy looked on with pride, knowing that her little scientists were well on their way to becoming experts in the world of knowledge. And so, in the heart of the jungle in Delhi NCR, Mandy and her classmates continued to explore, learn, and share their exciting adventures with the world, one project at a time.

Be A Scientist

1. Research about anything in science, write and send it to us.
2. Draw or design your own machine, colour it, and send.
3. Write a few paragraphs about anything that you would like to do in science.

OR

Do it all to see a full page dedicated to your Kreations.

CREATE!

MIGHTY MILLETS: A FUN ADVENTURE FOR KIDS' TASTE BUDS! 🌾🌈

Hey there, qurious young minds! Did you know that millets are tiny but powerful grains that can make your tummy and body super happy? It's true! And guess what? 🎉 This year, it's the International Year of Millets, and in September, we're celebrating the National Nutrition Month of India. How exciting is that?

Millets are like magical seeds that come in different colours and shapes. They are not only delicious but also full of energy and nutrients that help you grow strong and smart. Let's go on a millet adventure and discover some awesome recipes that you'll love! 🚀

1. Millet Popsicles: 🍧

Imagine colourful ice pops that are not just yummy but also healthy. Mix cooked millets with your favourite fruits like mangoes, strawberries, or bananas. Add a splash of milk and a touch of honey. Pour this mixture into ice pop moulds and freeze. Voila! You've got millet popsicles that are perfect for hot days. ☀

2. Millet Mini Pancakes: 🥞

Pancakes can be so much fun, especially when they're mini-sized. Mix millet flour with a bit of yogurt, a pinch of baking powder, and a little sugar. Cook tiny pancakes on a pan until they're golden and fluffy. Top them with berries, a drizzle of honey, or a dollop of yogurt. 🍓🍯

3. Millet Magic Salad: 🥗

Salads can be cool and colourful too! Mix cooked millets with chopped veggies like carrots, cucumbers, and bell peppers. Add a handful of nuts for crunchiness. Squeeze some lemon juice, sprinkle a pinch of salt, and toss it all together. Your millet magic salad is ready to make your taste buds dance.

4. Millet Dosa Delight: 🍽

Dosa is like a super-thin, crispy pancake. To make millet dosas, mix millet flour with water, a bit of salt, and let it sit for a while. Then, spread the batter on a hot pan to make dosas. Serve them with yummy coconut chutney or tomato sauce. 🥥🍅

M- Magical
I- Interesting
L- Lovely
L- Light
E- Extremely Delightful
T- Tasty

5. Millet Energy Balls: ⚡

Energy balls are like mini snacks that give you a burst of energy. Mix cooked millets with peanut butter, a drizzle of honey, and some chocolate chips. Shape them into small balls and keep them in the fridge. Grab one whenever you need a quick and tasty pick-me-up! 🍪💃

So, dear explorers of taste, don't miss out on the millet adventure this year! You're not only celebrating the International Year of Millets but also enjoying the goodness of nature's little powerhouses. Remember, these recipes are not just about food; they're about having fun in the kitchen and discovering new tastes. Enjoy your millet journey, and keep shining bright like the young stars you are! 🌟🚀

SCIENCE SONG

Gravity

In a world where we all live and play,
There's a force that makes us stay.
It's called gravity, you see,
And it keeps us grounded, you and me.

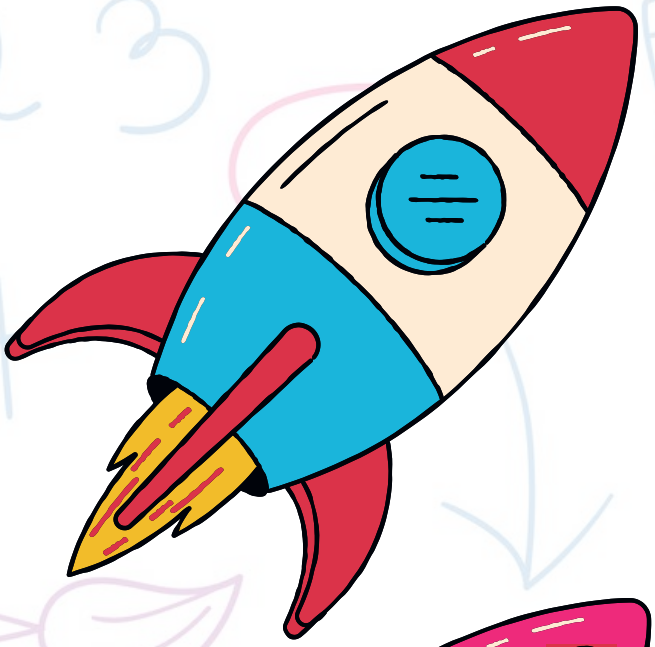
Imagine if you could float away,
Like a balloon on a sunny day.
But thanks to gravity's gentle tug,
We stay firmly on this big green rug.

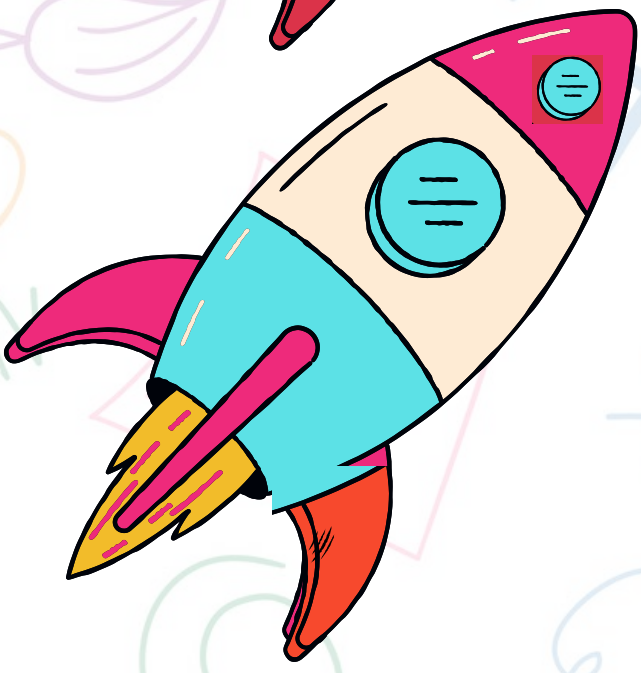
It pulls us down, but don't you fret,
It's what keeps our feet all set.
On the Earth, we jump and run,
Because of gravity, it's so much fun!

So remember, whether big or small,
Gravity's the reason we don't fall.
It's a force that's always there,
Making life on Earth quite a fair affair!

SPOT THE DIFFERENCE

Spot the differences. Answers in the next edition.





ALBERT EINSTEIN: THE BIOGRAPHY OF A GENIUS

Albert Einstein was one of the most famous and intelligent scientists of all time. He was born in Germany on March 14, 1879, and died in the United States on April 18, 1955. He is best known for his theories of relativity, which changed the way we understand space and time.

Einstein's early life

Einstein was a curious child. He loved to ask questions and solve problems. He was also a bit of a rebel. He didn't like school very much, and he often got into trouble for his behaviour.

When Einstein was five years old, his father gave him a compass. Einstein was fascinated by how the needle always pointed north. He wondered why the needle didn't just point up, like a sundial. This question sparked Einstein's lifelong interest in physics.

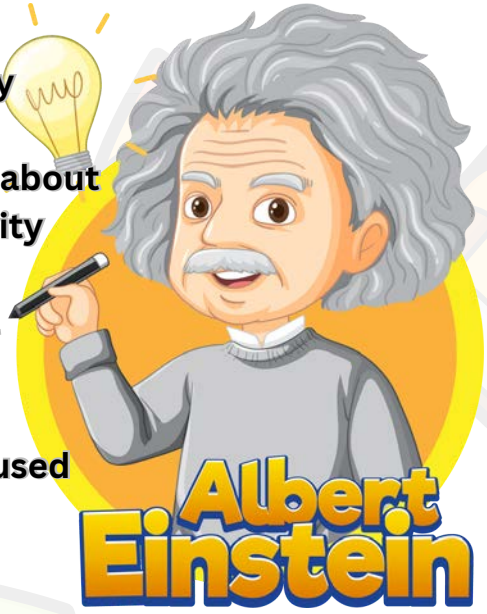
Einstein's education

Einstein went to college to study physics. He graduated from the Swiss Federal Polytechnic School in Zurich in 1900. After graduating, Einstein had trouble finding a job. He finally got a job as a patent clerk in Bern, Switzerland.

Einstein's scientific discoveries

While working as a patent clerk, Einstein was also thinking about physics. In 1905, he published four papers in the Annalen der Physik journal. These papers changed the way we understand light, matter, and gravity.

One of Einstein's most famous papers was about the photoelectric effect. The photoelectric effect is when light hits a metal and causes electrons to be ejected from the metal. Einstein was able to explain the photoelectric effect by showing that light is made up of tiny particles called photons.



Another famous paper that Einstein published in 1905 was about his special theory of relativity. The special theory of relativity describes how space and time are relative to the observer. This means that two people moving at different speeds will measure space and time differently.

In 1915, Einstein published his general theory of relativity. The general theory of relativity describes how gravity is caused by the curvature of spacetime. Spacetime is a fabric that is made up of space and time. Einstein's theory of gravity revolutionised our understanding of the universe.

Continued on next page

In continuation

Einstein's later life

Einstein became a world-famous scientist after his theories of relativity were published. He won the Nobel Prize in Physics in 1921 for his explanation of the photoelectric effect.

Einstein was a pacifist, which means that he was opposed to war. He spoke out against the Nazi Party in Germany and the use of nuclear weapons. In 1933, Einstein moved to the United States to escape the Nazis.

Einstein died on April 18, 1955, at the age of 76. He is considered to be one of the greatest scientists of all time. His work has had a profound impact on our understanding of the universe.

Fun facts about Albert Einstein

- Einstein was a bit of a slob. He didn't like to wear socks, and he often had messy hair.
- Einstein was a great violinist. He loved to play music in his spare time.
- Einstein was a vegetarian. He believed that it was wrong to kill animals for food.
- Einstein was once offered the presidency of Israel, but he turned it down.

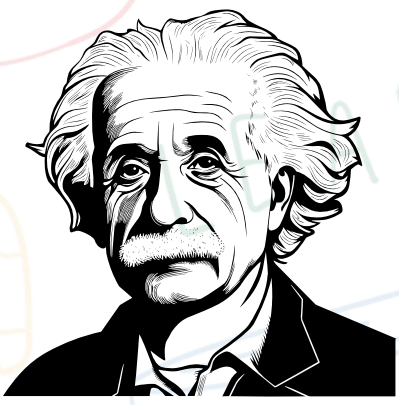
Einstein's legacy

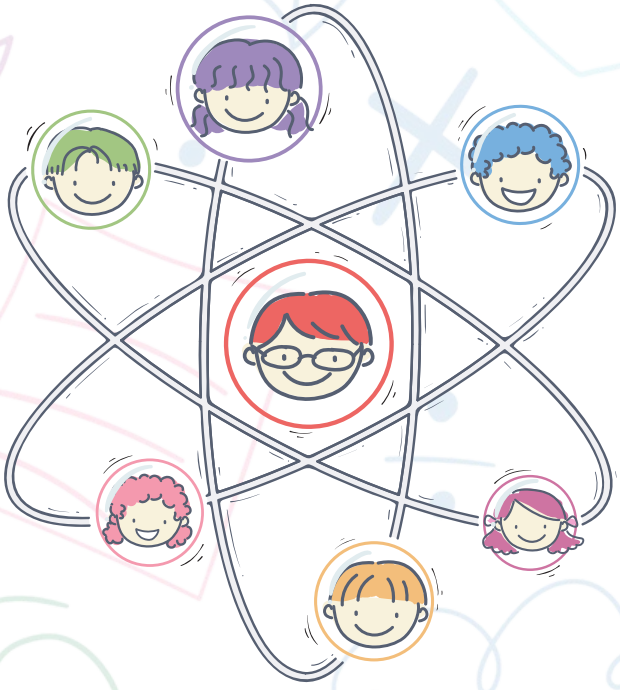
Albert Einstein is one of the most famous and respected scientists of all time. His work has had a profound impact on our understanding of the universe. Einstein's theories of relativity have helped us to understand how black holes and the Big Bang work.

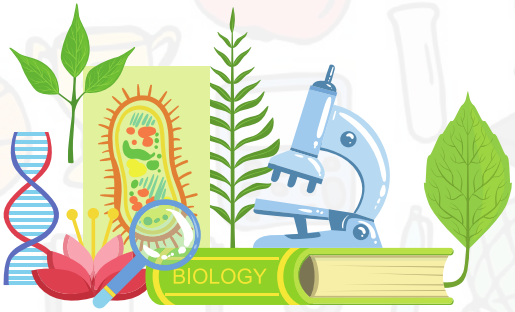
Einstein's work has also had a major impact on technology. For example, GPS satellites use Einstein's theories to calculate their position.

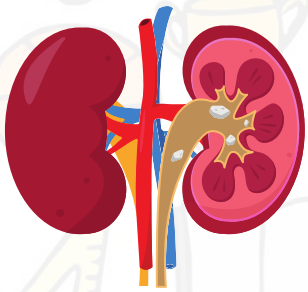
Einstein was a brilliant scientist, but he was also a kind and compassionate human being. He believed that science should be used to benefit all of humanity.

$$E=mc^2$$









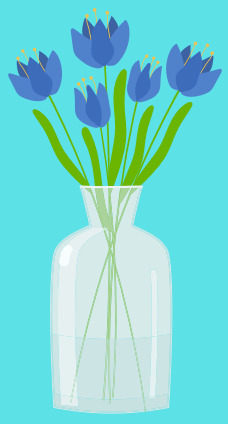
SCIENCE

1. The kitchen of a plant.
2. _____ once said "Two things are infinite: the universe and human stupidity; and I'm not sure about the universe."
3. The study of living organisms.
4. The person who discovered gravity.
5. The body part which filters our blood.
6. The air which helps us to survive.
7. _____ _____ is the heat energy of the Earth.

A. Biology
B. Albert Einstein
C. Geothermal Energy
D. Kidney
E. Leaf
F. Oxygen
G. Isaac Newton

Amazing Experiments

How the Stem Absorbs



What to do: Take a cup and fill it with water. Add red or blue ink to the water. Now take a light coloured flower with it's stem and put it in the cup.

What happens: The flower will now change into the colour of the ink.

How it works: When the ink reaches the stem from the roots it sends the ink to the flower and hence the flower will change colour.

This simple experiment shows us the use of the stem apart from making the plant stand straight.

For more information see: https://www.youtube.com/watch?v=NijT2hQIVc0

GEOTHERMAL ENERGY

Exploring Geothermal Energy: Earth's Hidden Heat Power

Hey there, curious kids! Today, we're going on an exciting journey deep into the Earth to discover something amazing – geothermal energy! It's like a secret superpower hidden beneath our feet. What is Geothermal Energy? Imagine our planet as a giant, cozy blanket with a super warm core. Deep, deep down, it's so hot that it could even melt a super-large cone of ice cream! Geothermal energy is the heat we get from the Earth's core. It's like a big, toasty hug from our planet.

How Does It Work?

Now, let's talk about how we use this hidden heat. Have you ever played with a water bottle and felt it get warm in the sun? Well, geothermal power plants work a bit like that but on a much bigger scale.

1. Hot Water and Steam: Under the ground, there's hot water and steam just waiting to be used. It's like a natural hot bath!
2. Power Plants: We build special power plants near these hot places. They're like magical machines that turn the hot water and steam into electricity.
3. Electricity for Homes: The electricity made from geothermal energy goes to our homes, schools, and even our favourite game consoles! It helps power all the cool stuff we use every day.

Cool Uses of Geothermal Energy

Geothermal energy isn't just about making electricity. It has some super cool uses:

1. Heating Homes: In some places, the warm water from the Earth is used to heat houses. It's like having a cozy, never-ending fire in your home!
2. Greenhouses: Farmers use geothermal energy to grow yummy fruits and veggies all year round. Even in the winter, their plants stay warm and happy.
3. Spa Time: Have you ever been to a hot spring? They're like giant, natural

bathtubs heated by geothermal energy. Perfect for relaxing!

So, kids, remember that geothermal energy is like Earth's warm and powerful secret. It helps us make electricity, keeps our homes warm, and even lets us have fun in hot springs. It's one of the coolest things our planet does for us! 🌍🔥

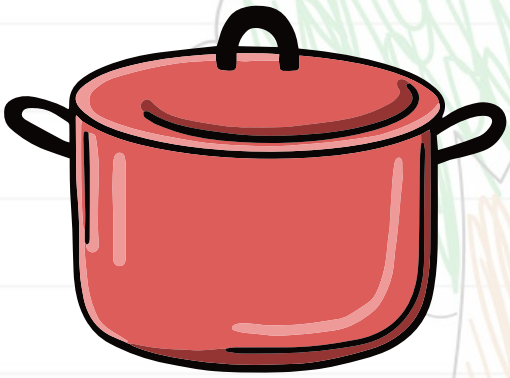
NASA's Newest Mars Simulation Experiment

By 2030, NASA hopes to take people to the Red Planet. At its closest, Mars is 55,000,000 kilometres away. The moon is less than four lakh kilometres from Earth and can be reached in as little as three days, but according to NASA, a speedy round-trip to Mars would take at least 21 months. The longest period of human space travel to date is 14 months, which was achieved by a Russian in 1994–1995 while stationed at the Mir Space Station. Consequently, NASA is now carrying out a CHAPEA mission. Kelly Haston, Ross Brockwell, Nathan Jones, and Anca Selariu are the four crew members of the crew health and performance exploration analogue expedition. Since June, this project has been carried out in Houston, America. In NASA's most recent Mars simulation experiment, these four Americans have been locked into a 1700 ft.² space. They see a barren, red sand-covered landscape when they glance "outside." They are permitted to take a couple weekly strolls while dressed in spacesuits. They plan to stay in this man-made ecosystem for a full year, subsisting on rationed food and water, and trying to maintain their bubble operational. In this manner, it is anticipated that this experiment would produce data on cognitive and physical performance to remain on the Red Planet.

Pan Zone: Does It Matter What Kind Of Pan You Use For Cooking

Did you know that the shape of your pan or utensils decides how the texture of the vegetables or the degree to which the flavour soaks into your food protein depends? For example, in a wide base cooking utensil, like Kadhai, one needs less oil and onions get browned far more quickly. Also water evaporates quicker from the food surface.

Whereas, in a utensil like a Handi Matka shaped utensils, which have a narrower base, chopped vegetables usually pile up and sweat rather than brown. Hence, the dishes that require a slower rate of evaporation are better cooked in a Handi. And they are full of flavour as they are cooked through by super hot steam.



Now in a tall pan we usually should cook dishes that contain meat or vegetables and a lot of gravies and curries such as lentils, soups or stews. Reason being that we aren't looking for speed, but rather for a long slow, simmer. A tall pan can also be used in the absence of pressure cooker.

For super-speed, however, we must take the sides of a utensil away. Just don't cut the sides of your saucepan literally. Choose a Tawa or griddle for super flat, quick action cooking. Such as making dosas, eggs, chapatis or bacon because water vanishes quickly in this situation.
So choose your utensil depending on what you are trying to cook. Have a nice meal!

Around the world, 120 million tonnes of sugar is eaten every year!

SARK

Engineers & Consultants

PROCESS DESIGN, ENERGY AUDITS, AUTOMATION

Let Us Help You Shine

SARK PROMOTIONS™

WEBSITE, BRANDING, GRAPHIC , DIGITAL MARKETING