

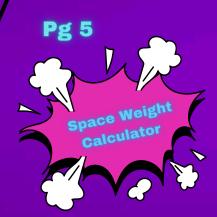
### Science Safari

World Ocean Day is observed on the 8th of June.



## ABOUT THE COVER

Discover the amazing world of science in this issue! From animals to AI to chemistry to studying space, science is a magical world which keeps us CURIOUS!





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### Note from the Editor:

Hey explorers! This is the 11th edition of the Qurious Atom. This time, we're embarking on a Science Safari, packed with exciting discoveries and mindblowing facts. The Qurious Atom unveils the magical world of science ranging from technology to biology to astronomy and so much more.

Check out Page No.-5 for a fun activity that lets you calculate your weight on different planets! This is not all, this edition is bursting with adventures that will take you on a journey through science, sustainability, and the amazing natural world.

I had a lot of fun during my summer vacations this year. I went to Jibhi, Himachal Pradesh; had an amazing time travel adventure at CurioCamp; and even met great Sudha Murty. But the best part was spending time with family.

During my holidays, I also went to "The Great Indian Science Fest" and had a blast. I learnt about sensors, electricity, Non-Newtonian fluid, bubbles, density and so much more. I even made slime. I hope you love the fun of science. Subscribe Now to this pack your curiosity.

> Your friend, Kanira World's Youngest Chief Editor

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### GREEN GENIUSES: MAKING SCIENCE ECO-FRIENDLY!

Science is all about exploration and discovery, but did you know it can also be super eco-friendly? That's right! By using a little creativity, we can be "Green Geniuses" and conduct awesome science experiments that are good for the planet. In the past, science experiments sometimes relied on harsh chemicals or used a lot of water. But Green Geniuses are all about finding smarter ways! Here are some cool things you can do:

- · Become a Recycled Researcher: Instead of throwing away empty bottles and containers, give them a second life!Use them to create mini greenhouses for seed germination or build contraptions powered by wind or water.
- · Harness the Power of Nature: Sunshine is a fantastic energy source! Design a solar oven to cook delicious treats or try building a mini solar-powered car.
- Kitchen Chemistry: Your kitchen is full of science waiting to happen! Experiment with baking soda volcanoes, make colourful slime with natural dyes from fruits and vegetables, or test the properties of different liquids using everyday items.
- Crystal Creations: Growing crystals is a classic science experiment, but did you know you can use everyday materials like salt or sugar? These are readily available and much more eco-friendly than some store-bought crystal growing kits.

By being Green Geniuses, we can explore the wonders of science while taking care of our planet. So next time you want to do a science experiment, think creatively and see how you can make it eco-friendly! Remember, a little green thinking goes a long way!

#### Solar Cooker



#### **Green Genius Activity: The Magic of Seed Dispersal!**

#### **Materials:**

- · Cotton balls (recycled from old makeup remover containers!)
- Different types of seeds (milkweed pods, dandelion seeds, deodar tree seeds)
- Large tray or shallow box
- Water

#### **Instructions:**

- Place a damp cotton ball in the center of your tray.
- Scatter different types of seeds around the cotton ball.
- · Observe the seeds for a few days. What happens to the cotton ball?
- Try gently blowing on the seeds. How do they move?

**Recycled Bottle Planter** 



The cotton ball represents an animal's fur, while the seeds represent those clinging onto it for a ride! This is how some seeds travel long distances by hitching a ride on animals. Seeds with fluffy parachutes like dandelions use wind to travel reaching new places to grow.

## <sup>4</sup> Taking Action: Steps Towards a Sustainable

**Future** 

The Earth is facing some major problems! Climate change, pollution, and habitat destruction are just a few of the Issues that need our attention. That's why we celebrate World Environment Day on June 5 each year to raise awareness and take action to protect our planet.

> What is Causing These Environmental Challenges?

Humans are the main culprits when

- · Burn fossil fuels like gasoline and coal, releasing harmful gases making it harder to breathe.
- Cut down trees, causing habitat loss and soil erosion.
- Litter and throw plastic on the land and in water, causing water and land pollution.

What Can We Do To Help?

You might be wondering what you can do to help. The good news is that every small action counts! Here are some simple ways to make a difference:

- 1.Reduce, Reuse, Recycle: Reduce your waste by not using singleuse plastics, reuse bags and containers, and recycle as much as you can.
- 2. Conserve Energy: Turn off lights, electronics, and taps when not in use to save energy and water.
- 3. Plant Trees: Planting trees helps clean the air and provides homes for animals.

World Environment Day is a reminder that every small action we take can make a big difference. By working together, we can keep our planet clean, healthy, and happyl We can be the "Eco-Detectives" and discover ways to create a sustainable future - from reducing waste to planting trees - we can all take action for a greener futurel



# FUN

## PLANETS

### What are Planets?

Planets are large, round objects that orbit stars like our Sun. They vary in size and composition—some have solid surfaces while others are made mostly of gas. They reflect light from the Sun and play a crucial role in our understanding of the universe and Earth's place within it.



Cosmic Comec

What did Mars say to Saturn?

"Give me a ring sometime!"

### Your Weight on Another Planet

My Weight on Earth:\_\_\_\_Kg\_

Our weight
changes on different
planets because each
planet has a different
amount of gravity. Gravity
pulls us down towards the
ground. On planets with
stronger gravity, like Jupiter,
we weigh more. On planets
with weaker gravity, like
Mars, we weigh less.

Planet	Multiply by	Result (kg)
Mercury	0.38	
Venus	0.91	
Mars	0.38	
Jupiter	2.34	
Saturn	1.06	
Uranus	0.92	
Neptune	1.19	



### The Curious Chronicles of Jungle Grove

#### Ch-10 "Kenyan Safari: Mandy's Journey of Discovery"

As she came back from her trip to London, Mandy the Monkey was thrilled about her next summer adventure: a vacation to Kenya with her parents, Monica and Michael Monkey. They decided to travel by airplane, and Mandy was excited to learn about the science behind airplanes during their journey.

On the plane, Mandy asked her mother, "Mom, how does this huge plane stay in the air?"

Monica explained, "Airplanes fly because of the principles of aerodynamics. The wings are designed to create lift by changing the air pressure above and below them. The engines provide thrust to move the plane forward, and the shape of the wings allows it to stay up in the air."

Fascinated, Mandy spent the rest of the flight looking out of the window and thinking about how amazing it was that she was soaring above the clouds.

#### STORY

Once they landed in Kenya they checked in to their hotel and reached their first destination: the Maasai

National Reserve, a place teeming with diverse wildlife and breathtaking landscapes. Mandy marveled at the sight of elephants, lions, zebras, and giraffes in their natural habitat. She learned about the different types of animals and trees, and how they all played a vital role in the ecosystem.

One evening, as they sat around a campfire at their traditional Kenyan resort, a local guide shared stories about the Maasai culture and heritage. Mandy was captivated by the colorful beadwork, traditional dances, and the rich history of the Maasai people. She felt a deep appreciation for the culture and traditions of Kenya.



Their adventure continued as they traveled to the Kenyan coast, where Mandy relaxed on the beautiful sandy beaches. She was excited to try scuba diving for the first time. Underwater, she marveled at the vibrant coral reefs and the myriad of sea creatures. Her mother, Monica, explained the science behind scuba diving, including how the equipment works and the importance of conserving marine life.

Monica also shared some important facts about water pollution, explaining how litter and chemicals can harm the delicate ecosystems of the ocean.

Mandy was inspired to be more mindful of the environment and to do her part in protecting it.

One day, Mandy's mom took her to a fascinating museum that showcased Kenya's rich history and scientific achievements. Mandy was particularly intrigued by exhibits on the origins of humankind and the incredible biodiversity of the country.

As their vacation came to an end, Mandy and her parents boarded an airplane for the journey back home. Mandy gazed out of the window, reflecting on all the amazing things she had learned and experienced in Kenya. She felt a newfound appreciation for the wonders of science and the importance of understanding and protecting the world around her.

Back in Jungle Grove, Mandy couldn't wait to share her adventures and newfound knowledge with her friends and classmates. Her trip to Kenya had been more than just a vacation; it had been a journey of discovery, learning, and inspiration.



Map of Kenya



Kenyan Landscape



## MOON SAND



#### **Materials:**

- 8 cups of flour
- :1 cup of baby oil
- Deep, Large Tray

#### What To Do:

Put the flour in your tray. Slowly and gradually pour the baby oil. Mix well.

DID YOU

KNOW?

#### **What Happens:**

Your moon sand is ready! You should notice it is easily mouldable. This occurs as a result of the oil filling the airspaces between the grains of flour, causing them to stay together.

#### Try It:.

Throw small balls or marbles to form craters of different sizes. Try making a footprint similar to the ones left by astronauts who have stepped on the moon using a shoe.

The Moon measures 3,476km in diameter— that's roughly a quarter of the size of Earth.

There are some similarities between moon sand and the actual dust on the Moon's surface, but also some key differences! Here's a 'breakdown:

#### **Moon Sand:**

- Made of a mixture of sand or flour and oil.
- Feels moldable and can hold its shape for a short time.
- Used for sensory play and learning about textures.

#### **Moon Dust:**

- Not actually sand, but very fine, sharp particles of rock.
- Created by billions of years of meteoroids and asteroids hitting the Moon's surface.
- Doesn't hold its shape and sticks to everything, including astronaut suits!
- Gets very hot in the sunlight and extremely cold in the shade.

## Facts About Moon's Surface

- It's called "lunar regolith" (say: REE-guh-lith).
- It can be like thick, powdery snow or clumpy ash, depending on the location.
- The dust can even smell like burnt gunpowder due to the absence of air and constant bombardment by the Sun.
- Astronauts' footprints on the Moon will stay there for millions of years because
   there's no wind or rain to erase them!

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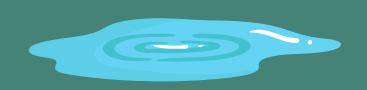
The jungle is a treasure trove of biodiversity, where countless species of trees thrive in harmony with a diverse array of animals. Trees in the jungle provide vital habitats and food sources for numerous creatures, from the agile spider monkeys swinging through their branches to the colorful toucans seeking shelter among their leaves. Beyond shelter and food, trees play a crucial role in regulating the climate by absorbing carbon dioxide and producing oxygen. Some trees, like the Towering Kapok, are so massive they support entire ecosystems within their branches. In addition to their ecological importance, trees in the jungle have cultural significance, providing materials for tools, medicine, and even traditional ceremonies of indigenous tribes. Protecting these trees is essential not only for the survival of jungle wildlife but also for maintaining the rich cultural heritage intertwined with these majestic giants.



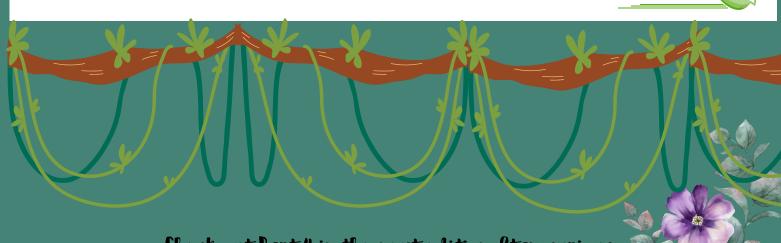
World Rainforest
Day is Gelebrated on
June 22 annually.



## Part 3 Rivers of Life



Water is the lifeblood of the jungle, coursing through its rivers and waterways, sustaining a rich tapestry of wildlife and plants. These flowing streams and tranquil pools provide essential drinking sources for animals, from the playful river otters to the majestic jaguars that come to quench their thirst. The rivers also harbor unique aquatic species, such as colorful fish and elusive river dolphins, adapted to thrive in their watery homes. Beyond serving as habitats, these waterways play a vital role in nutrient cycling and ecosystem stability, ensuring the jungle remains a thriving haven of biodiversity. Exploring the rivers of the jungle unveils the interconnectedness of its ecosystems and highlights the importance of conserving these precious water resources for future generations.



Check out Part 4 in the next edition. Stay curious, stay creative, stay confident.





ARE BEES

MPORTANT

Bees fertilize our plants by spreading pollen from one plant to another or even across different areas of the same plant, which aids in plant reproduction.

Itching happens when something irritates our skin, like bug bites or allergies. Our body releases a chemical called histamine, which sends signals to our brain, making us feel itchy. Scratching can feel good because it stops the signals, but scratching too much can hurt our skin. Itching helps us know that something is bothering our skin and needs attention.

WAY DO WE



## ANIMAL &



## FACTS

- Frogs possess eardrums located externally on their heads.
- Sea otters habitually float on their backs while feeding.
- The tongue of a Blue Whale weighs as much as an adult elephant.
- Kangaroos are known to produce flatulence.
- Did you know that octopuses have three hearts and blue blood?
- A giraffe's tongue can grow up to 21 inches long and is purple to protect it from sunburn.
- The pistol shrimp can snap its claw so fast it creates a bubble that reaches temperatures hotter than the sun.
- Elephants are the only mammals that cannot jump.

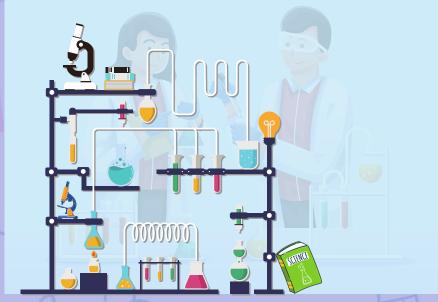
## What is Green Chemistry?

An area of science that is all about developing new ways to do chemistry and design products that are less harmful to the environment. Did you know scientists are creating new processes to make everyday products, like clothes and bottles, from plants or recycled materials? This uses less energy and fewer harmful chemicals.

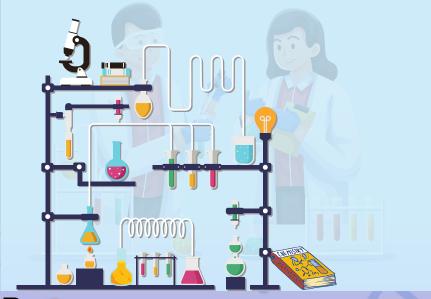
#### SPOT THE DIFFERENCE

Spot the differences between the two scenes.

Answers in the next edition.



A



B

### **Spot The Difference. Answer of May Issue**







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The KK Times

#### 🗦 Festive Wonders

in the vibrant tapestry of indian culture, festivals hold a special place. They are not just dates on the calendar: they are moments that weave stories of logetherness, recreation, and culturary delights. In find festival to be a fascinating sadject that perfectly aligns with my passion for sharing quilting information in a simple yet engaging manner.

Festivals are a beautiful reminder of the importance of family and friends. In our fast-paced lives, we often get caught up in the hustle and boustle, but during the festive season, we pause to reconnect with loved ones. It is a time when relationships take center stage, and the joy of meeting family and friends transcends all boundaries. As I explore the significance of festivals, I can't help but draw parallels to the way scientific phenomena bridge people together, much like the gravitational pull that binds celestial bodies.

Festivals are not just about rituals: they are means of recreation. They infuse life with a sense of celebration, akin to how a well-balanced equation in chamistry creates harmony. Be it the exhilarating dance during Navratri or the colorful play of Holl, festivals rejuvenate our spirits. [Contineadon Page 3]



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#### The KK Times-

Superhero Foods 🎒

The process of gobbling up yummy food and magically turning it into superpower energy and other super-duper important things is called 'nutrition'. It's like having a secret superpower inside your tunnny! Innagine that!

You see, nutrition isn't just about murching on food: it's about getting special gifts like vitamins and minerals. They're like tiny superheroes that make your body strong and healthy.

Vitamins are like the Avengers, fighting off germs and bad stuff, while minerals are the Justice League. Keeping your bones and muscles super strong. And energy, well. It's like the super fuel that powers you up, ready to take on the day like a true superhero!

Let me explain it to you. When you eat delicious vegetables and other healthy food your body uses the vitamins, minerals and other staff to make energy and other needs which are needed to live. Nutrition also helps in keeping us strong and powerful by using all the goodles we eat to power up our body. MUTRITION

So I hope you understand the importance of good nutrition in life. Do you know that September is observed in India as the National Nutrition Month or "Poshan Maah"? Read more on this in following pages.

