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THE STORY OF

CHANDRAYAAN-3

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## About This Short-Read

“Chandrayaan-3” is a thrilling short read about space exploration, specifically focusing on India's mission to the moon. Imagine hopping aboard a spaceship and zooming towards the moon, that's exactly the exciting journey this book takes you on! Filled with colorful illustrations, fun trivia, and simple explanations, it brings the wonders of scientific discovery right into your hands. Get ready to embark on a space adventure and uncover the mysteries of the moon, one page at a time!

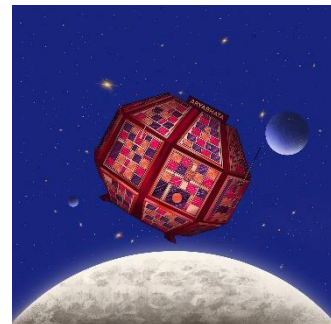
## About ISRO:

Have you ever looked up at the sky and wondered what's out there? Have you ever dreamed of going to space and seeing the stars, the planets, and the Moon? Well, you are not alone. There are many people who share your curiosity and passion for space. And some of them work at a place called ISRO.

ISRO is one of the best space agencies in the world, and it has made India proud and inspired many people. ISRO's motto is "Space technology in the service of humankind". That means ISRO wants to use space for good and help everyone on Earth. Isn't that awesome?

ISRO has done many amazing things in space, such as launching satellites, rockets, and missions to the Moon and Mars. Let's see some of them.

- ISRO built India's first satellite, Aryabhata, which was named after a famous Indian mathematician and astronomer who lived long ago.



- They launched their first rocket, SLV-3, which carried a satellite called Rohini.



- They developed more powerful rockets, such as PSLV and GSLV, which can carry bigger and heavier things into space.

- They sent three missions to the Moon, Chandrayaan-1, Chandrayaan-2, and Chandrayaan-3, which explored the lunar surface and found water on the Moon. We will explore more about Chandrayaan-3 mission in next few pages. Are you wondering what a mission is? Keep wondering... 😊

- They sent one mission to Mars, Mangalyaan, also known as MOM, which reached Mars orbit on its first try and cost less than making a movie.



ISRO is a wonderful place where people work hard and have fun. They are always looking for new ideas and challenges. They are also always looking for new friends and partners who share their vision and passion for space. Maybe one day, you could be one of them!

Now Let's talk about the fun part of this book, Chandrayaan-3...

Are you ready?...

Grab your spacesuit, fasten your seatbelt, and get ready for a once-in-a-lifetime experience.

Let's explore the moon, discover fascinating stuff, and have tons of fun while doing it!

3... 2... 1... Take off!



Chandrayaan-3 is not just one thing. It is many things. It is a spacecraft that can launch objects into orbit. It is a spaceship with lunar (Moon) trip capabilities. It is a lander with lunar landing capabilities. It is a mobile rover that can go and investigate the Moon. It is also a team of people who work together to make the mission possible.

Now, what is a Mission?

Mission is like a big project or a goal that you want to achieve. A mission can be anything that you are passionate about and want to work hard for. For example, your mission could be to learn a new skill, to help someone in need, or to make the world a better place.

But sometimes, a mission is not just for yourself. Sometimes, a mission is for your team, your country, or even for humanity.

Chandrayaan 3 is one of those missions. Chandrayaan 3 is India's mission to the Moon.

The Moon is our next-door neighbor in space, and it is very beautiful and mysterious. It has many secrets and wonders that we want to discover and learn from. Chandrayaan means “moon vehicle” in Sanskrit, which is an ancient language of India.



Chandrayaan-3 launched on July 14th 2023, is not the first mission that India has sent to the Moon. It is actually the third one, after Chandrayaan-1 and Chandrayaan-2.



Chandrayaan-1 was the first Indian mission to the Moon, and it found water on the Moon's surface. That was a big surprise, because we thought the Moon was dry and barren.

Chandrayaan-2 was the second Indian mission to the Moon, and it tried to land near the south pole of the Moon, where no one has ever landed before. But it faced some problems and could not land safely.

Chandrayaan-3 is the third Indian mission to the Moon, and it is going to try again what Chandrayaan-2 could not do. Let me explain with an example.

Imagine Moon as vast playground and Chandrayaan as an adventurer who wishes to explore particular area of Moon called “South Pole”. This is similar to how you might want to search



different areas of a playground for hidden treasure. The moon's south pole is a sort of top-secret location where it is extremely cold and dark. According to scientists, there may be ice in these locations, exactly

like the ice in your freezer at home.



Future astronauts who plan to travel to the moon may find this ice to be extremely valuable because they can utilize it to make drinking water or extract breathable air from that water.

## Challenges to the Mission

### Distance:

Do you know the distance between the Moon and Earth? It is extremely far away. It is so far away that it would take around 160 days for a car to make it to the Moon. That exceeds the length of your summer vacation! How then might we travel to the Moon more quickly and easily? We'll need a unique vehicle that can travel very quickly and very high. A rocket is required. A rocket is similar to a huge firework that can shoot up into the sky and reach space. Some rockets are bigger and stronger than others. Some rockets can carry more things and go farther than others. Heavy things are called payloads, and they



can be satellites, spacecrafts, or rovers. Chandrayaan-3 used the most sophisticated rocket called “LVM3-M4 rocket”.

### **Landing:**

Chandrayaan-3 is an extremely difficult and dangerous mission.

Since the Moon lacks an atmosphere, there is no wind or air to slow

down spacecraft. In addition, the Moon

features several craters, rocks, and

slopes that can make landing challenging.

Extremely hot to extremely cold

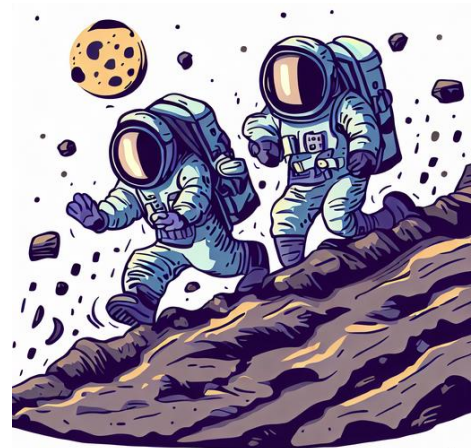
temperatures can be found on the Moon

as well. Additionally, communication between the spacecraft and

ground control is delayed due to the distance between the Moon

and Earth. Chandrayaan 3 overcame this challenge by using a

precise and robust landing system called “Vikram 2.0”.



## Exploration:



The most thrilling and satisfying element of the mission is the exploration. We aim to uncover and learn from the Moon's numerous secrets and surprises. But there are also many risks and challenges that we must conquer. This obstacle was overcome by Chandrayaan-3 utilizing a rover by name "Pragyan", a little robot that can move around and investigate the Moon. The rover features sensors, cameras, and tools for studying the Moon and its surroundings. Additionally, it generates electricity using solar energy.

What is your Role?

We are in a unique period of history. Some of the most incredible and significant space missions ever are happening right now, just like Chandryaan-3. The most potent and sophisticated rockets, satellites, and spacecraft have ever been seen. Some of the most important and fascinating facts and information are being taught to us right now.

You are not merely observing. you are also participating and contributing. you are the next generation of space explorers, scientists, engineers, and leaders. You have the ability to influence the future of space exploration.

By reading books, watching videos, going online, and conducting experiments, you can learn more about space. You can also join in groups, courses, and events that will assist you hone your abilities in space-related sectors.

Space is amazing and wonderful.

And so are we.

We are the future of space exploration.

And the future is bright

### **Parent's Guide:**

One of the most intriguing and motivating areas of science and technology is space exploration. It is also among the most important and beneficial for both humanity and our planet. Because of this, we implore you to foster and support your kids' interest in space exploration. By this, we don't just mean studying about space; we also imply acquiring the knowledge, expertise, and attitudes necessary for space exploration. These include perseverance, teamwork, communication, critical thinking, creativity, and problem-solving. Thank you for your support and interest in space exploration. We hope you enjoy this book that we created for you and your children.

Please leave your comments under this post in social media to encourage other parents to read and share with their children.