

সবুজের
ফুলঝুরি

CHANDRAYAAN-3 India makes History Pratham Agarwal , F E 205

On 16th September 2019, Chandrayaan-2 crashed on the moon. The whole country was in despair months of hard-work and crores of rupees had been wasted but our brave scientists did not lose hope and just after 4 years on 14th July, 2023 Chandrayaan-3 was launched.

Chandrayaan-3 was launched aboard an LVM3-M4 rocket on 14 July 2023, at 09:05 from Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh, India. entering the Earth's orbit at a speed of about 1.6km/s.

On 23 August, the Chandrayaan-3 lander module successfully landed on the moon's South pole, making it the first country to have achieved the historic feat. The country became the fourth— after the US, China, and Russia – to have successfully landed on the moon's surface.

This mission was developed and launched in a budget of about 615 crores and a surprising fact is that an American movie about space, Interstellar had a budget of 1,200 crores. So, we need half the price to make a journey to the moon than others need to just make a video about it.

The LVM3 rocket was made up of maraging steel which is the second most efficient metal for boosting fuel.

The Chandrayaan-3 Mission consists of two modules - The propulsion module (PM) and the Lander module (LM). The total mass of both the modules is 3900 kg.

The Chandrayaan-3 rocket took 42 days to reach the moon. This was because while the Chandrayaan-3 mission was launched on India's heaviest rocket, the Launch Vehicle Mark-III, it was still not strong enough to propel the mission on a direct path of the Moon. Hence, the longer journey increased the time duration of the mission. Another reason why Chandrayaan-3 took so long to reach the Moon was that the mission used a relatively small amount of fuel, and chose a slower and gradual trajectory for lunar insertion.

The first stage of the rocket is powered by solid fuel, the second stage by the liquid fuel and the final stage comprises of a cryogenic engine which is powered by liquid hydrogen and liquid oxygen. This mission consists of a lunar lander named Vikram and a lunar rover named Pragyan.

The mission objectives of Chandrayaan-3 are:

1. To demonstrate Safe and Soft Landing on Lunar Surface.

2. **To demonstrate Rover roving on the moon.**
3. **To conduct in-situ scientific experiments and**
4. **To check the presence of water on moon.**

Scientists who made

Chandrayaan-3 possible-

S Somnath, chairman of ISRO.

Ritu Karidhal,

Mission Director of Chandrayaan-3.

P Veeramuthuvel,

Project Director.

V Narayanan, liquid propulsion,

Systems Centre.

While the Chandrayaan-3 mission was launched on India's heaviest rocket, the Launch Vehicle Mark-III, was still not strong enough to propel the mission on a direct path of the Moon. Hence, the longer journey.

I express my heartfelt gratitude to these wonderful scientists because of whom India has now reached the moon. We love you ISRO to the moon and back.

Quiz

Chirag Das, FE-296

1. What is acrophobia a fear of?
2. Which is the only continent with land in all the four hemispheres?
3. Which country drinks the most coffee?
4. When did Sachin make his ODI debut?
5. When did Portuguese merchants first land to Goa?
6. When is International Mother Language Day?
7. In which year @ sign was first chosen for its use in e-mail address?
8. What is the ancient name of Patna?
9. What is the capital of China?
10. For which subject did Abhijit Banerjee won the Nobel Prize?

How Fast TIME Goes By

Anaranya Mitra , F E 200

"Settle down kids we've already wasted about 10 minutes of this class by discussing the classwork answers. We have to carry on with the rest of the chapter it will be there for the annual exams." But being for real it is not at all easy to settle 10 year old kids just after knowing that maybe most of them are going to get full marks but still she did her best to calm the kids down. That took some more time of course but after everything was settled she carried on with the ongoing chapter. "Do we really need to study about the Mesopotamian civilization, it was so long ago also it is so boring there is nothing that is good about this civilization." Looking up she said, "Uh! to answer that let me tell you we are also going to be history someday maybe a 100 years from now or maybe a 1000 years from now. And we all have to do fun things for the people in the future to study right, and if they don't read about us then you would feel bad. In the same way the people from that time also did so much and if we do not read about them they will be so sad and then the people of the future won't read about you because they will learn that you did the same thing. Now would that be nice?" The little girl who asked the initial question shook her head and sat down. And teacher went on with the chapter.

The kids also had to learn about two more civilizations, it were probably Indus Valley and Egyptian civilisation. One day she took

the kids to the AV room which was basically Audio Visual room to make them watch some videos about the Indus Valley civilization. No one ever paid attention to what was going on in the screen but were more interested to sit in the dimly lit cold room and chat away with their friends. I think she also knew it and would not really mind it as long as the other classes weren't disturbed. One day she let the kids act as if they were the teacher and let them ask her questions like teachers do and not every question was related to history or more specifically about the Indus Valley civilization. Rather it varied like a lot of irrelevant things like, "Do you know how many states are there in between Kashmir and Kanyakumari?" Now of course there are practically many states in between these two places and it is kind of weird to have to count them. But those kids tricked her. It was not a question of geography rather a little fun physics was mixed in it. When the answer revealed that there is only 1 state, she was surprised. Why? Because there is ice in Kashmir and Kanyakumari in near the sea and as in the state of matter, water comes after ice so only 1 state.

Well, Class 4 ended after that and the pandemic struck and online classes were introduced to all of us. One of the chapters of that term was about Netaji Subhas Chandra Bose and she explained the entire incident that lead to the formation of the Azad

Hind force like a story. It was so well explained, it felt like things were happening in the present time, right then and there. In most of her classes she explained everything so well that it felt a 1000 times more interesting. She gave the class a worksheet one day and it was like an impromptu test which need to be completed and submitted just then. We all did and after checking she appreciated few of us and of course I was one of them. But then the next day the link to her class did not open. It did not open any day after that. If I could, I would turn back time just to say sorry to her because though

she praised me for writing correct and well formed answers in that worksheet, the only thing I did not confess was that, I did not study and copied everything from Google.

It was announced after a couple of days that she had unfortunately passed away due to lung infection and multi organ failure. Rest in peace Paromita ma'am!! No teacher has ever made me enjoy history like you did and I was a huge coward for not telling you that I had not done that worksheet honestly. I still hope you can forgive me. Remembering you always!

Answers of Quiz

- | | |
|-----------------------------------|------------------------------|
| 1. Heights | 6. 21 st February |
| 2. Africa | 7. 1972 |
| 3. Finland | 8. Pataliputra |
| 4. 18 th December 1989 | 9. Beijing |
| 5. 16 th Century | 10. Economics |

Spot the Difference

Shelley R Maji, FE 296



Riddles

Titli Maji, FE 296

1. What has a head but no neck?
2. Which 5 letter word can be read upside down?
3. What goes up but never comes down?
4. What is full of holes but still holds water?
5. Which single digit number has no value?
6. What has hands but cannot clap?
7. What is at the end of a rainbow?
8. I cannot talk but I always reply when spoken to. What am I?
9. What can go through glass but cannot break it?
10. Which 2 things we can never eat for breakfast?



Adhreet Saha, FE 99



Aarushi Agarwal, FE 205



Pratham Agarwal, FE 205

SUDOKU

Puzzle one

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

- Clues:
 1. Seek a 2 in the centre block of squares
 2. Finish the centre block of squares
 3. Search for 2s everywhere

Puzzle three

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

- Help:
 5. Row 1 column 8 can only be 2
 6. Row 2 column 9 can only be 8

Puzzle two

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

- Clues:
 1. Find the 7 in row 2
 2. Find the remaining 7s
 3. Row 2 column 8 can be 6



Titli Maji, FE 296



Aarya Roy, FE 120/2



Shaunak Mitra, FE 305
पेट

तरह तरह के होते हैं पेट,
कोई हमे देता आम तो कोई बेढ।
पेट से लकड़ी पेट से फल,
पेट के बिना सुना हैं कल।
पेट से दवाई पेट का छांव,
पेट से लगती सुनहरी मेरी गाँव।
पत्ते से लगती हैं हरी भरी,
एक पैर पर पेट हैं खड़ी।
पेट से मिलती ताज़ा श्वास,
पेट हमारे लिए हैं खास।
छोटा एक बीज से हैं बना,
पेट काटना हैं मना।
पशु पक्षियो को भी हैं पेट से
लगाव,



Sagnik Chakraborty, FE 403

Butterfly

Butterfly, Butterfly
What are you doing?,
I fly around, I fly around.
With my wings.
Butterfly, Butterfly
Where do you live ? .
In the garden I live
Bye Bye, Bye Bye my dear friend,
Goodbye, goodbye my best friend.

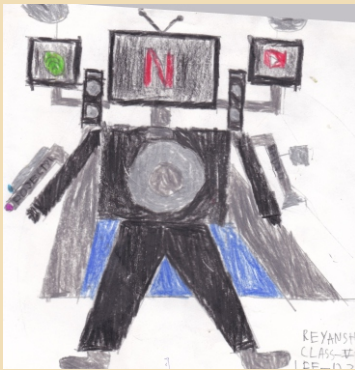


Aaditya De, FE 120



Puzzle-3

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



Reyansh De, FE 123

Puzzle-1

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

Puzzle-2

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

Spot the Difference (Solution)



Answers for Riddles

1. Bottle
2. SWIMS
3. Age
4. Sponge
5. Zero
6. Clock
7. W
8. Echo
9. Light
10. Lunch and Dinner