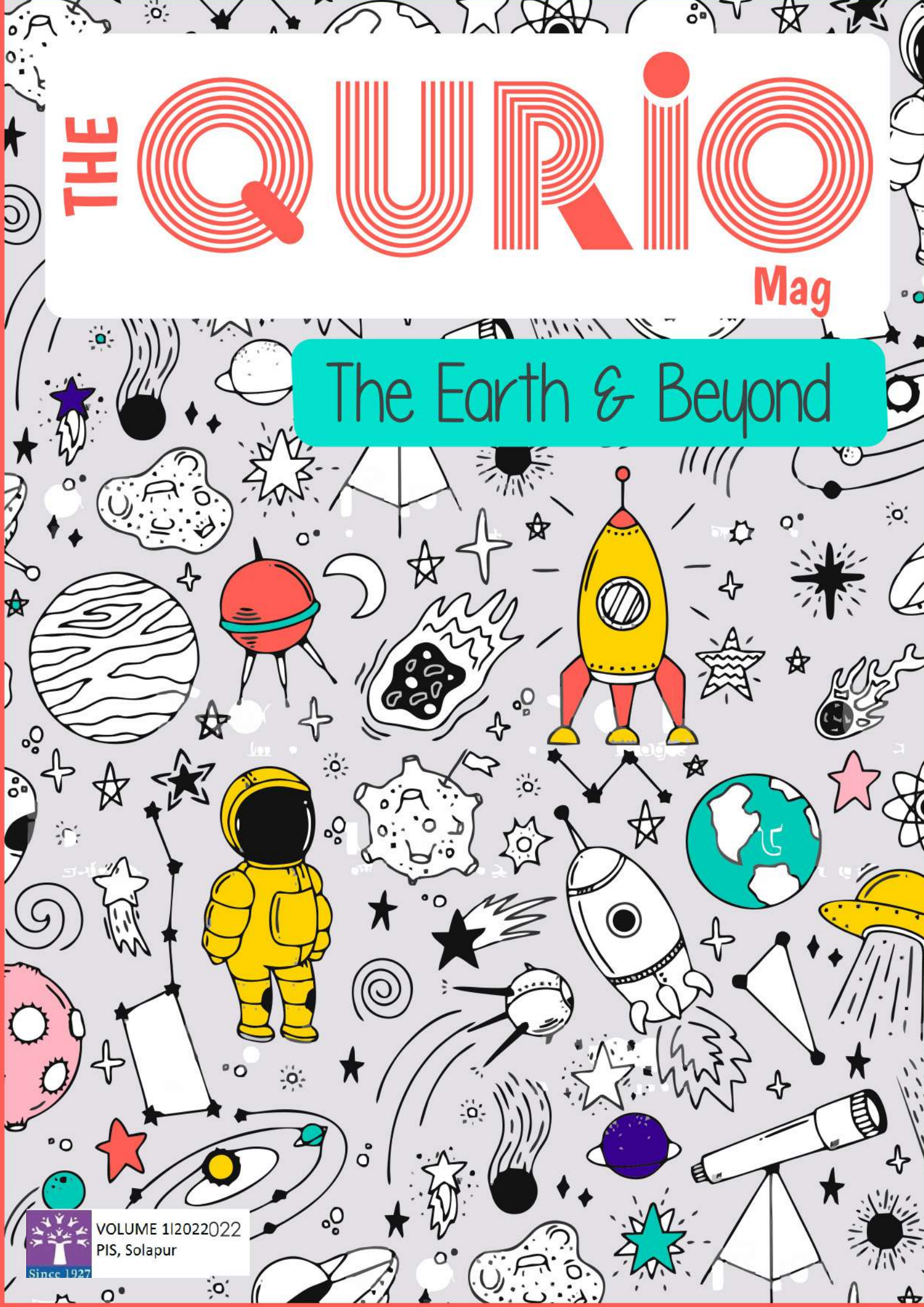
THE QURIO Mag

The Earth & Beyond



VOLUME 1|2022
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CONTENTS

CONTENTS

FROM THE PRINCIPAL'S DESK

At the outset, I express my gratitude to the parents who have put their faith in us to educate their children. This brings with it tremendous responsibilities and assurance to live up to your trust in us. Today, the role of a school is not only to pursue academic excellence but also to motivate and empower the students to be lifelong learners, critical thinkers, and productive members of an ever-changing global society. Converting every individual into a self- reliant and independent citizen, our school provides an amalgam of scholastic and co-scholastic activities wherein our students are achieving to the Zenith. We at Podar International School, Kankavli are happy to launch a school magazine 'The Qurio Mag', a magazine which gives opportunities to the students to showcase their creativity in the form of stories, articles, poems and so on. The theme for the 1st Volume is 'The Earth & Beyond' has given the students a chance to learn and explore 'Outer Space' in a fun and creative manner. I congratulate the entire team for their hard work and dedication in making this magazine. I am sure that the positive attitude, hard work, sustained efforts and innovative ideas exhibited by our young children will surely stir the minds of the readers and take them to the fantastic world of sheer joy and pleasure. "Education is a shared commitment between dedicated teachers, motivated students and enthusiastic parents with high expectations"

Regards,
Principal
Mr. Samarendra Panigrahi

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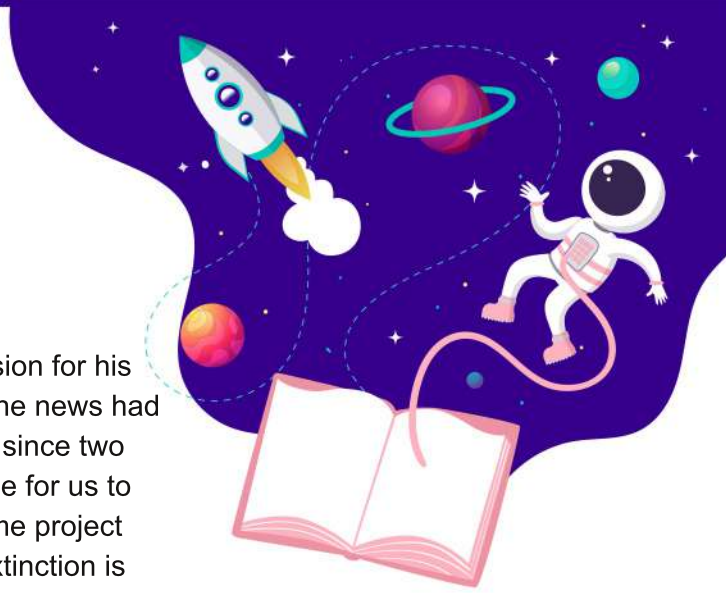
CHRONICLES OF SPACE



Jamie's Adventure through the Milky Way

On a fine day, Jamie a middle school student turned on the television for his Dad, soon his dad opened the news channel, and coincidentally the news had just started "Breaking News!, the earth is getting warm vigorously since two days, experts say “the earth can explode in few days. It's advisable for us to move out of the earth, yes! On the mars we have been on the same project since 5 years. Now the only way to save the human being from extinction is moving to mars, the deadline for moving to mars is just 6 hours. If you are watching this, without wasting time, arrive at "Richard Space station, Alaska" Jamie's Dad was shocked. He quickly asked his wife and son to pack all the necessary food items. They need to move as fast as possible. The space station is about 36km away from their house. Finally, after 3 hours they reached the space station.

AT THE SPACE STATION:

Announcement: All of you are requested to be in the spaceships in 5 minutes, we will be taking off soon.

PEOPLE RUSHED INTO THE SPACESHIPS WITH TERROR

The heat of the atmosphere sucking the ship in and spitting it out into darkness. The vastness of it all was breath taking. As the engine slowed the static in Jamie's earpiece came again, "Please be patient and calm". Jamie looked at the pilot and he smiled, Jamie couldn't believe he was in space. He no longer was melted into his seat, rather floating with his seatbelt holding him down.

All passengers checked all the gages to make sure everything was still working and we had oxygen. Jamie gave thumbs up and took off his helmet and seatbelt. Jamie instantly floated to the top of the shuttle. He grabbed the bars that were welded throughout the ship to help guide us as they floated into different parts of the shuttle. The static in his earpiece came again, "I'm going to get some shut eye", said the pilot disappearing into the sleeping quarters. "Roger that" Jamie replied floating to the kitchen for a bite to eat. He unlatched the cabinet door and opened it to reveal silver packages that were generically marked, turkey sandwich. He proceeded to open the package and the sandwich floated into the air. He disposed of the package into a latched box on the wall marked, trash reciprocal. He grabbed the sandwich, and headed back into cock pit. All of them were to take turns sleeping to make sure we didn't drift off course.

As Jamie ate his sandwich, he was still in amazement that, he was in outer space. He looked out the left side of the window and saw planet earth, his beautiful blue and green home. His earpiece started to static and a voice came into my ear, "how does everything look up there". Jamie replied, "like the most beautiful, peaceful black sea, but now due to global warming it looks like a mini Sun Soon the red planet mars was visible Jamie was amazed, the space ship had landed on mars finally. Jamie and all the other passengers had their first step on moon, due to the gravity Jamie was floating. he saw the 2 moons of mars, it was comparatively less warmer at mars than at earth. There were no apartments to live, no food to eat just a uneven surface and only billions of humans in front of him all panicked, soon the head of the space station said "don't get panicked we all are safe here food and all necessary items are being brought from earth by our brave soldiers through truck sized spaceships, suddenly after the head said this Jamie saw that a huge meteoroid is coming towards them nearer and nearer, all passengers we're about to die but.....booosh! Jamie waked up from his dream, earth was not getting warmer day by day, there was no such space station name Richard Space station, it was just a dream of Jamie.

-Armaan Bagwan Grade VIII Accomplish

The Modern Space Projects

Space exploration is the use of astronomical and space technology to explore outer space. While the exploration of space is carried out mainly by astronomical telescopes, its physical exploration is conducted both by robotic space probes and human spaceflight. Space exploration, like its
classical form astronomy, is one of the main sources of Space Science.
While observations of objects in space, known as astronomy, predates reliable recorded history, it was the development of large and relatively efficient rockets during the mid-twentieth century that allowed physical space exploration to become a reality. The world's first large-scale experiment rocket program was Opel-RAK under the leadership of Fritz Von Opel and Max Velier during the late 1920s leading to the first fruit rocket cars and rocket planes, which paved the way for the Nazi Era V2 program and US and Soviet activities from 1950 onwards. The Opel-RAK program and the public demonstrations of ground and air vehicles drew large crowds, as well as caused Global Public excitement as so called
“Rocket Rumble” and had a large long-lasting impact on later spaceflight pioneers like Wernher von Braun.
Common rationales for exploring space included advancing scientific research, national prestige, uniting different nations, ensuring the future survival of humanity and developing military and strategic advantages against other countries.
The early era of space exploration was driven by a “Space Race” between Soviet Union and United States. The launch of the first human-made object to orbit the earth, the Soviet Union’s Sputnik 1, on 4 October 1957 and the first Moon landing by the American Apollo 11 mission on 20 July 1969 are
often taken as landmarks for this initial period.
The Soviet space program achieved many of the first milestones, including the first living being in orbit in 1957, the first human spaceflight in 1961, the first spacewalk on 18 March 1965, the first automatic landing on another celestial body in 1966, and the launch of the first space station in 1971.
Space Travelling has many benefits and drawbacks

- Space Travelling can provide humans various resources while they cause significant air pollution.
- Space flights may help us to find extraterrestrial life but it harms the life on earth by causing pollution.
- Technological progress will facilitate space travel while it may cause problems of radiations

Space Travelling paved the way for dramatic changes in the fields of technology and have availed many new opportunities for the upcoming generations. New tools and innovations have been an important asset in the development of the planet. It has let the man to explore the universe and have a whole different experience. Hope the space exploration would continue further and reach the highest limits of technology and exploration.

Shubham PanigrahiGrade IX Achieve

MISSION MANGALYAN

The first project to go on mars got to. The best opportunity got to Indian Space Research Organization. The Mass Orbiter Mission also, called Mangalyaan, is a space probe orbiting mars since 24 September 2014. It was launched on 5 November 2013 by ISRO. It was launched at Satish Dhawan Space Center, Shriharikota. The rocket used to launch was Polar Satellite Launch Vehicle-C25.This is the cheapest mission to mars till now. The rocket is explained below.

Mangalyaan is primarily a technological mission and it has been configured to carry out observation of physical features of Mars and carry out limited study of the Martian atmosphere. A team of 14 ISRO scientists is credited as being the brain behind this mission. If successful, ISRO will be among a league of three other agencies that have achieved success on missions to Mars.

1. K Radhakrishnan: He is the Chairman of ISRO and Secretary in department of space. He was responsible for leading the mission and overall activities of ISRO. He said, "It has been a new and complex mission. The journey has begun, the challenging phase is going to come."

2. M Annadurai: He is the Programme Director of Mars Orbiter Mission. He joined ISRO in 1982 and is leading many Remote Sensing and Science missions. He was responsible for budget management, direction for spacecraft configuration, schedule and resources. He was the project director of Chandrayaan-1 and now Chandrayaan- 2, the Indian missions to Moon. As it is India's first true inter-planetary mission, the challenge for him was to ensure enough autonomy for the spacecraft to take decisions on its own and negotiate a nearly 50 per cent difference in climatic conditions between Earth and Mars.

3. S Ramakrishnan: He is the Director of Vikram Sarabhai Space Centre and Member Launch Authorisation Board. He joined ISRO in August 1972 and played a key role in the development of PSLV and was responsible for development of liquid propulsion stages and their interfacing with vehicle and launch operations. He is responsible for realising the rocket (Polar Satellite Launch Vehicle) that ferried the Mars orbiter. He said, "From here to go to Mars we are going to use only a fraction of what we did in getting to the (Earth) orbit." The challenge for him was the launch of the rocket. He said the launch window was only five minutes. The 28 minutes coasting time of the rocket before the ignition of the fourth engine was also long. The overall launch duration of around 45 minutes was nearly double that of the normal PSLV launches.

4. SK Shivakumar: He holds the position of the Director of ISRO Satellite Centre. He joined ISRO in 1976 and since then he has made several contributions to planning and operations of Indian satellite missions. He was the project director for India's first indigenous Deep Space Network antenna. He was responsible for developing satellite technology and implementing satellite systems for scientific,technological and application missions. He said, "Our baby is up in the space. It was almost like a caesarean."

5. P Kunhikrishnan: The project director of PSLV programme and was appointed as mission director for the ninth time. He joined ISRO in 1986 and was the mission director of eight successful PSLV Missions. He is the mission director of PSLV-C25/Mars Orbiter Mission, scheduled to be launched on November 5.He was responsible for seeing the rocket completes its mission successfully and that the satellite is correctly injected in the designated orbit. The challenge for him was that the orbital characteristic of the Mars Mission is different from regular PSLV missions. The total duration of the launch was 44 minutes. This required prudent thermal management and protecting the systems and equipment from low temperatures in the space.

SPACE PROJECTS

6. Chandradathan: He is the Director of Liquid Propulsion system. He poined ISRO in 1972. Initially, he worked for the SLV-3 Project during its design phase and later was involved in the development of solid propellant formulations for SLV-3 and over three decades, made rich
contribution to the realisation of solid motors for sounding rockets, SLV-3, ASLV and PSLV.
7. AS Kiran Kumar: The Director of Satellite Application Centre joined ISRO in 1975. He has contributed to the design and development of Electro-Optical Imaging Sensors for Airborne, LEO and GEO platform based imaging sensors starting from Bhaskara TV payload to the
latest TMC adHySI payloads for Chandrayaan-1 missions. He was responsible for designing and building three of the orbiter payloads - Mars Colour Camera, Methane Sensor and Thermal Infrared Imaging Spectrometer. The challenge before him was miniaturising the components as the satellite does not provide much space. He said, "We have been successful in completing the first step in the long mission."
8. MYS Prasad: He is the Director of Satish Dhawan Space Centre and Chairman of the Launch Authorisation Board. From 1975 to 1994, he worked in the launch vehicle development programmes of ISRO. He was part of the project Ttam of SLV-3, the first indigenously
developed launch vehicle of India. He was director of the Master Control Facility of ISRO from 1998 to 2005. He was responsible for range safety and schedules, overall in-charge
at rocket port. As the launch was during northeast monsoon season the challenge was to enhance weather forecasting capability to 10 days and simultaneously carrying out preparatory work for Mars Mission while dismantling the GSLV rocket after the mission was aborted earlier
this year.
9. S Arunan: The Project Director of Mars Orbiter Mission and was responsible for leading a team to build the spacecraft. The challenge for him was to build a new communication system,
making of the spacecraft which was largely autonomous to take decisions, making the orbiter engine which would restart after 300 days, designing of solar power cells and developing new navigation software.
10. B Jayakumar: He is the Associate Project Director of PSLV project. He is responsible for the rocket systems, testing till the final lift-off.
11. MS Pannirselvam: The Chief General Manager of range operation director at Sriharikota Rocket port was responsible for maintaining launch schedules without any slippages.
12. S Arunan: Project Director of Mars Orbiter Mission at Indian Space Research Organisation (ISRO).
13. V Kesava Raju: The Mission Director of Mars Orbiter Mission
14. ISRO scientific secretary V Koteswara Rao.

- Ayush Mane Grade VIII Accomplish

THE UNIVERSE TODAY

Space & Astronomy News

Tiranga in space: Flag unfurled above Earth; greetings from ISS

India Independence Day 2022: Greetings have been pouring from all across the world as India marks 75 years of freedom.

The hues of tricolour are being embraced far and wide, and not just in India, as the country celebrates 75 years of independence. With the country looking back at the journey of 75 years of freedom on the Independence Day, not just nations across the globe but the enthusiasm has reached space too.A video has been shared by the Space Kids India - an aerospace organization “creating young scientists for the country”, according to its website - which highlights that with the help of a special Nano-Satellite Launch Vehicle (NSLV)-Balloon launch, tricolour was unfurled “30 km near space”.Space Kids India was in the news recently when the ISRO’s Small Satellite Launch Vehicle took its maiden flight about a week ago. The launch - which was carrying a satellite developed by 750 girl students linked to Space Kids India - however, was not successful.Meanwhile, the ISRO on Saturday tweeted another video of greetings from the International Space Station to mark India @ 75.European Space Agency astronaut Samantha Cristoforetti5’s message congratulating India was shared. “For decades, many internationalorganizations have collaborated with India for many space missions. And that cooperation continues today,” she is heard saying in the clip, referring to the Earth Science Mission that will help in getting a better understanding of climate change.

Hindustan times

ISRO to launch 2022’s first mission on Monday

The PSLV-C52/EOS-04 mission has been delayed twice already due to the pandemic. Initially planned for the third quarter of the 2021, the launch got pushed to the fourth quarter and finally to early 2022.

The countdown for this year’s first launch by the Indian Space Research Organisation (ISRO) will begin early on Sunday morning, with takeoff scheduled for India’s workhorse Polar Satellite Launch Vehicle (PSLV-C52) from Andhra Pradesh’s Sriharikota at 5 am on February 14.

THE UNIVERSE TODAY

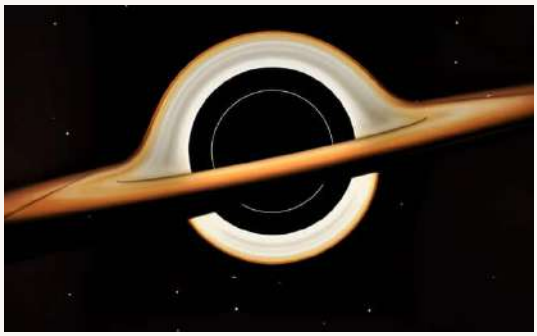
Space & Astronomy News

Fastest-growing black hole in nine billion years visible from backyard

The fastest-growing black hole of the last nine billion years has been
discovered by an international team led by astronomers* at The Australian National University (ANU).

The black hole eats the equivalent of one Earth every second and shines 7000 times brighter than all the light from our own galaxy, making it visible to well-equipped backyard astronomers.
Lead researcher Dr Christopher Onken and his co-authors described it as a “very large, unexpected needle in the haystack.“Astronomers have been hunting for objects like this for more than 50 years,” Dr Onken said. “They have found thousands of fainter ones, but this astonishingly bright one had slipped through unnoticed.”

The black hole has the mass of three billion suns. Others of a similar size stopped growing so quickly billions of years ago.



NASA’s James Webb Space Telescope begins epic mission to peer into universe’s past

While Aussie kids were on holidays, a team at NASA was busy launching the world’s most powerful space telescope into orbit. The James Webb Space Telescope blasted off from Earth in a Ariane 5 rocket from French Guiana on Christmas Day. Because the telescope was too large to fit into the rocket’s nose cone in its operational configuration*, it was transported folded up. This meant it needed to be unfolded in space – a complex and risky task. NASA engineer Mike Menzel described the process as “arguably the most challenging deployment* program ever done by NASA”.
Engineers sent a command from the Space Telescope Science Institute in Baltimore, in the US, on January 8 for the final section of the telescope’s golden mirror to unfold.
“I want to tell you just how excited and emotional I am right now,” said senior NASA engineer Thomas Zurbuchen during a live video feed.
“We have a deployed telescope on orbit.”

MOVIES AND BOOKS RECOMMENDATIONS

Movies

1. Apollo 13 (1995)

NASA must devise a strategy to return Apollo 13 to Earth safely after the spacecraft undergoes massive internal damage putting the lives of the three astronauts on board in jeopardy.

2. The Martian (2015)

An astronaut becomes stranded on Mars after his team assumes him dead, and must rely on his ingenuity to find a way to signal to Earth that he is alive and can survive until a potential rescue.

3. Interstellar (2014)

A team of explorers travel through a wormhole in space in an attempt to ensure humanity's survival.

4. First Man (2019)

A look at the life of the astronaut, Neil Armstrong, and the legendary space mission that led him to become the first man to walk on the Moon on July 20, 1969.

5. Gravity (2013)

Two astronauts work together to survive after an accident leaves them stranded in space.

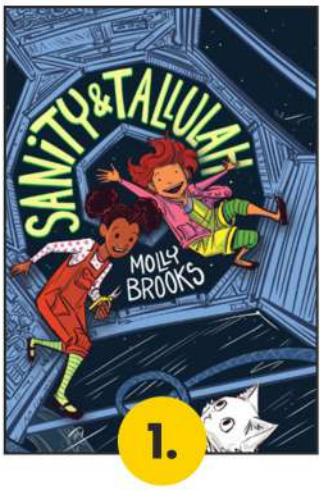
6. Fly Me To The Moon (2009)

Three young house flies stowaway aboard the Apollo 11 flight to the moon.

7. Mission Mangal (2019)

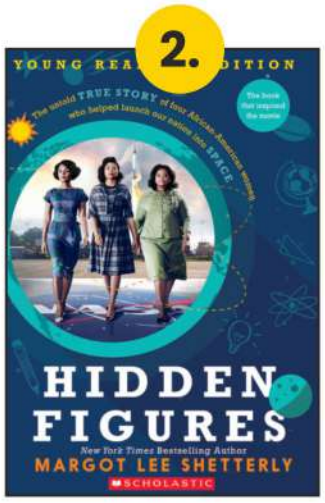
Based on true events of the Indian Space Research Organisation (ISRO) successfully launching the Mars Orbiter Mission (Mangalyaan), making it the least expensive mission to Mars.

Books



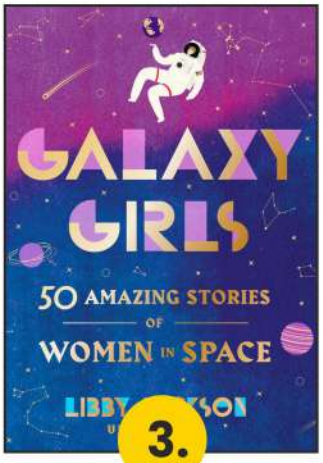
1.

Sanity & Tallulah
Molly Brooks



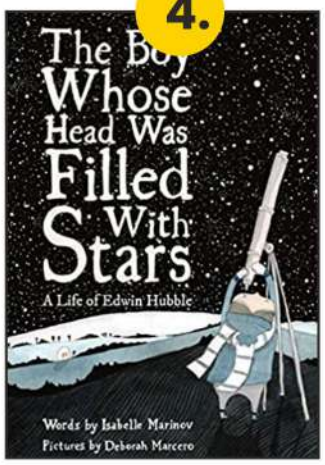
2.

Hidden Figures
Young Readers'
Margot Lee Shetterly



3.

Galaxy Girls: 50 Amazing
Stories of Women
In Space
Libby Jackson

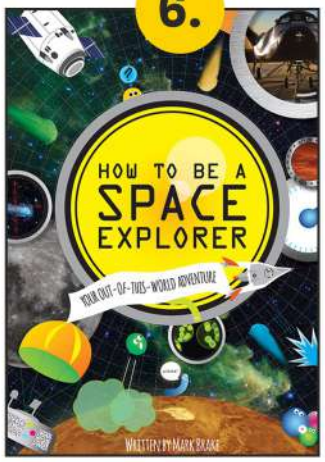


4.

The Boy Whose Head Was Filled with Stars:
A Life of Edwin Hubble

5.

The Kid Who Came
From Space
- Ross Welford



6.

How To Be A Spcae Explorer:
Your Out Of This World
Adventure By -
Lonely Planet Kids

Review
Movies & Books

Title of the Book/Movie:

HIDDEN FIGURES

Movie/Book Summary:

Three brilliant African-American women at NASA -- Katherine Johnson, Dorothy Vaughan and Mary Jackson -- serve as the brains behind one of the greatest operations in history: the launch of astronaut John Glenn into orbit, a stunning achievement that restored the nation's confidence, turned around the Space Race and galvanized the world.

How many hearts do you give this movie?

(Draw a heart to rate - 1 heart means the movie was really bad.
5 hearts means it was great!)

Movie/Book Reviewed By: Mst. Anshuman Upade VIII-Accomplish

Title of the Book/Movie:

MISSION MANGAL

Movie/Book Summary:

A group of scientists at ISRO battle in their personal and professional lives and work tirelessly towards their only motive, the Mars Orbiter Mission. Mission Mangal" is an uplifting film. The film's enthusiasm about its subject and its ability to make you care about its characters help even out the bumps in its path.

How many hearts do you give this movie?

(Draw a heart to rate - 1 heart means the movie was really bad.
5 hearts means it was great!)

Movie/Book Reviewed By: Ms. Divya Bhosale VIII-Achieve

Review
Movies & Books

Title of the Book/Movie:

THE INDIAN SPACE PROGRAMME

Movie/Book Summary:

The Indian Space Programme is a very interesting read. The book describes the evolution of India's activities in space in the context of Indian and global scientific and technological evolution. Reading the book is like walking down a broad avenue and exploring interesting side streets that appear from time to time. For example, the chapter on the rise of National Space Programmes opens with Tipu Sultan and his rocket battery and explores its improvement by Sir William

How many hearts do you give this movie?

(Draw a heart to rate - 1 heart means the movie was really bad. 5 hearts means it was great!) ♡♡♡♡♡

Movie/Book Reviewed By: Ms. Vibha Vaidya IX-ACHIEVE

Title of the Book/Movie:

BRIEF ANSWERS TO THE BIG QUESTIONS

Movie/Book Summary:

In his final book, Brief Answers to the Big Questions, Stephen Hawking once again displays his trademark ability to seek answers to questions regarding space and time. He also looks at the current state of humanity and the implications of technology and social issues.

How many hearts do you give this movie?

(Draw a heart to rate - 1 heart means the movie was really bad. 5 hearts means it was great!) ♡♡♡♡♡

Movie/Book Reviewed By: Mst. Adhrit Mane VI-Achieve

BUZZING POETS

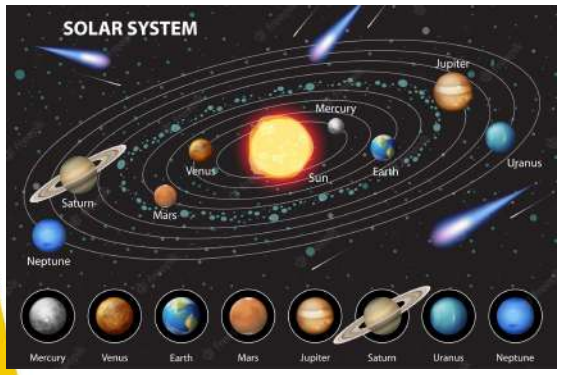
STARS

The Sun gives us sunshine
The Clouds make it to rain
The stars in the milky way have a word to say
The stars in the galaxy shining gay
The moon playing hide-n-seek in the day.

The Sun gives us sunshine
The Clouds make it to rain
While seeing the stars
it feels like we are sleeping hay on soft.

Will I count them or will I just lay?
For the beautiful shining sun's ray
Will I need to pay
The Sun gives us sunshine
The Clouds make it to rain.

Shubham M.Mathapati GRADE VIII ACCOMPLISH



SPACE POEM

There are 9 planets
That orbit the sun
But people and animals
Live on just one.
The earth is our planet
We must take good care
of the air, land and water
That all people must share.
The sun keeps us warm
Where ever we are
All our light comes
From this great big star.
A Rocket is the best way
To travel in space
With one Great Big Blast
You can go to any place.
astronauts travel
A long way through space
They learn lots of facts
That they bring back to base.

Nidhi Jadhav Grade V Achieve

BUZZING POETS

SPACE

ABOVE THE SPACE WHAT LIES?

HAVE YOU WONDERED WHAT'S ABOVE THE BLUE SKIES? I WONDER HOW MANY ARE THERE GALAXIEST I HOPE OUR GALAXY NOBODY SEES

IT IS A THING TO FUSS

WHAT WILL HAPPEN IF ALIENS ATTACK US OH! THE DAY BLACK DWARFS WILL EXPLODE WILL BE OUR LAST FIREWORK! THAT END WOULD BE SUDDEN PURK

WELL THATS TOO FAR

THINK ABOUT THE TWINKLING STAR

WOAH! IS THE UNIVERSE FINITE? EDUC MAN! THE MOON LOOKS GREAT AT TWILIGHT

THE DAY WILL COME WHEN WE WILL BE ON MARS BUT STILL WE WON'T KNOW EXACT NUMBER OF STARS THE MIGHTY JUPITER THE HOTTEST MERCURY, THE UTTER

THE VENUS THE EARTH'S TWIN THE RING OF SATURN LOOKS LIKE ITS GRINN NEPTUNE&SATURN THE COLDEST AND FARTHEST BUT ACTUALLY OUR MOON IS THE BEST

-Ishan S. Mali Grade VIII Achieve

SPACE Exploration

Space Exploration

First, what do you mean by space exploration?

Discovering new planets, stars, etc... Or something like that. Well space exploration is more than that. Let us see how the journey of space exploration started. The journey of space exploration started by a ‘Space Race,' between the Soviet Union and the United States. The launch of first human-made object to orbit of Earth, The Soviet Union’s Sputnik 1, on 4 October 1957, and the first Moon landing by the American Apollo 11 mission on 20 July 1969 are often taken as landmarks for this initial period.
After the first 20 years of exploration, focus shifted from one-off flights to renewable hardware, such as the Space Shuttle program, and from competition to cooperation as with the International Space Station (ISS).

Spaceflight

Space flight is the use of space technology to achieve the flight of spacecraft into and through outer space. Spaceflights are used in space exploration, and in commercial activities like space tourism and Satellite telecommunications. Additional non-commercial uses of spaceflight include space observatories, reconnaissance satellites and other Earth observation satellites. A spaceflight typically begins with a rocket launch (provides the initial thrust to overcome the force of gravity). Once in space, the motion of a spacecraft---both when unpropelled and when under propulsion---is covered by the area of study called astrodynamics.

Satellites

Satellites are used for many purposes like: military and civilian Earth observation, communication, navigation, weather, research, etc.

- Akash Das Grade VII Accomplish

SPACE CAREERS

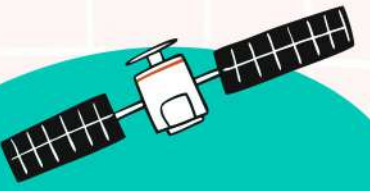
Reaching for the Stars

If you're among those who dream of making their mark in the field of space, you're in luck. Space exploration and related careers is an ever-expanding area with great potential for numerous future career specializations. If your answer is yes there are many careers that you can opt to be a part of space such as:

- Astronauts
- Space Technology
- Engineering
- Space Researchers/ Scientists (Astrophysicists, Biologists, Biochemists, Biophysicist, Geoscientists, Astrobiologists)
- Space Law
- Space Tourism
- Space Architecture
- Space Medicine/Psychology

Which are the top Space Science colleges in India?

- Indian Institutes of Technology (IITs)
- Indian Institute of Science, Bangalore
- Indian Institute of Science Education and Research (IISER-TVM)
- Indian Institute of Space Science and Technology, Kerala
- Centre for Earth and Space Sciences, (University of Hyderabad)
- Aryabhatta Research Institute of Observational Sciences, Nainital
- Indian Institute of Astrophysics, Bangalore
- Inter-University Centre for Astronomy and Astrophysics, Pune
- National Centre for Radio Astronomy, Pune



What are the courses you can opt for in Space Science after 12th?

- B.Tech in Aerospace Engineering B.Tech in Avionics Engineering
- B.Tech+M.S./M.Tech (B.Tech. in Engineering Physics + M.S. in Solid State Physics, Astronomy, Earth System Science / M.Tech. in Optical Engineering)
- M.Tech in Electronics, Electrical, Mechanical and Computer Science
- PhD in relevant disciplines.

SCIENCE FUN

– @Home –

Let's make a Hovercraft

Materials:

- An old CD
- HOT GLUE gun/fevikwik
- Thumbtack/ pin
- Bottle cap
- Balloon

Steps to make a Hovercraft :

- Make holes in the plastic bottle top.
- Use a hot glue gun/feviquick and fix the bottle top over the hole of the CD. *(Please Note: Students can take help of adults while handling the fevikwik and pins.)*
- Blow up the balloon.
- Twist the neck of the balloon to keep it inflated and pull the lip of the balloon over the edges of the bottle cap.
- Let it Go - Set on a flat surface like a counter top or floor. Release the balloon and watch it glide along without any effort just over the surface.

ASTRO SNACKS

FRUIT ROCKETS

All you need to make these easy-to-assemble Fruit Rockets are:

- watermelon
- banana
- kiwi
- strawberries
- cantaloupe
- skewers

FUN FACT

Some foods like bread, fruits and nuts stay the same in space. Other foods have to be vacuum packed to keep their shape and save space.

MARTIAN SNACKERS

All you need to make these easy-to-assemble Martian snackers are:

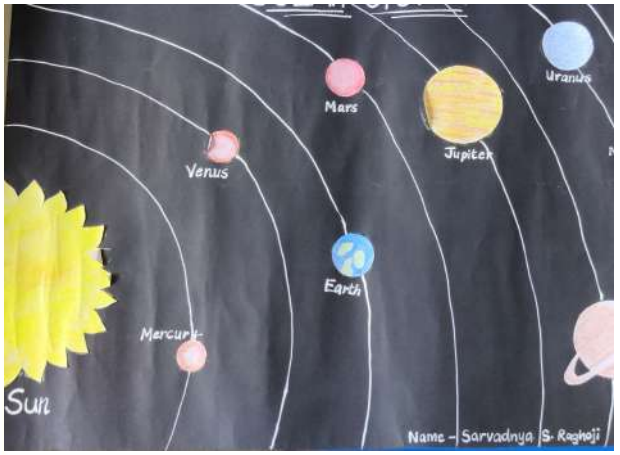
- Monaco biscuits
- Cherry tomatoes
- Cucumber
- Cheese
- Mayonnaise or Tomato sauce

INTERSTELLER ART GALLERY

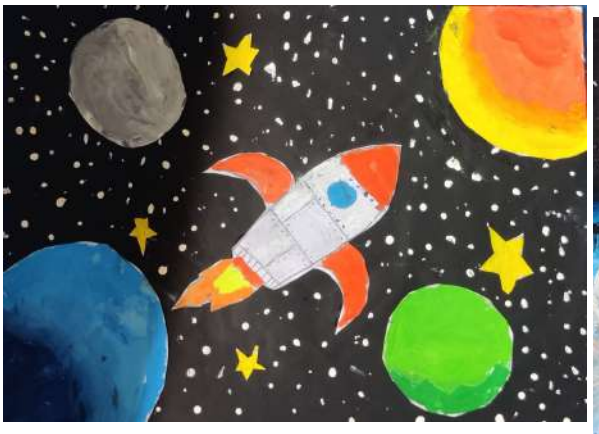
Mst. Soham Miskin V-ACHIEVE

Mst. Pratik Dhanshetti
IX-ACCOMPLISH

Ms. Aaradhya Burbure
V-ATTAIN



Mst. Sarvadnya Raghoji III-ATTAIN



Ms. Aditi Thombare IV-ATTAIN

Mst. Shriniwas VI-ACHIEVE

Ms. Bhoomi Doiphode VII-ACCOMPLISH

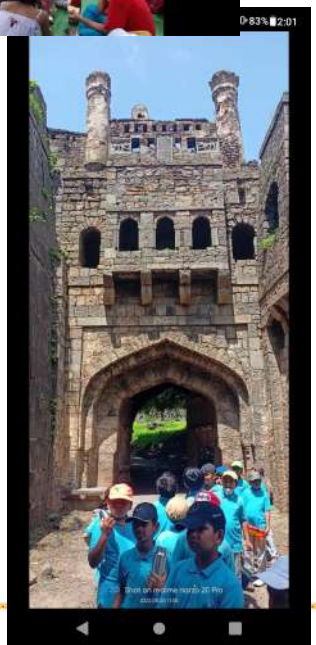
Mst. Samar Chaudhari V-ATTAIN

SPOTLIGHT @ PIS

ACHIEVEMENTS AND AWARDS

SPOTLIGHT @ PIS

VISITS AND ACTIVITIES



SPOTLIGHT @ PIS

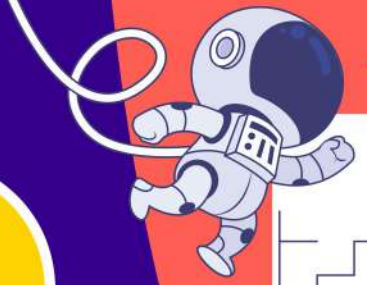
CELEBRATIONS AND ACTIVITIES

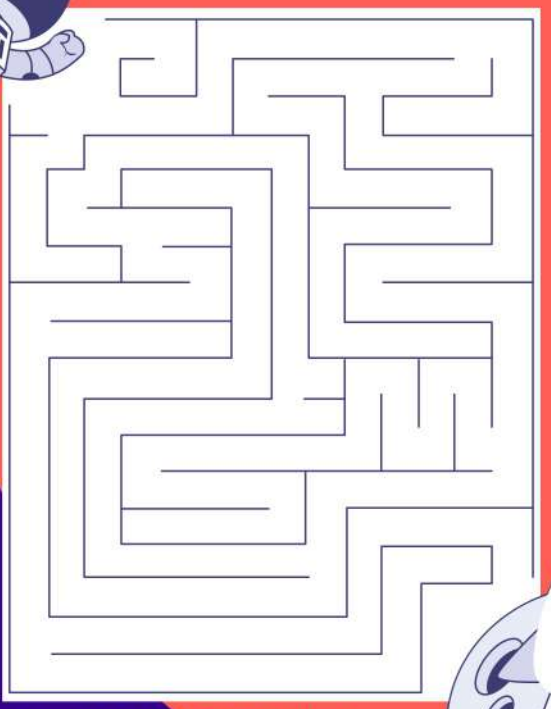
SPOTLIGHT @ PIS

CELEBRATIONS AND ACTIVITIES

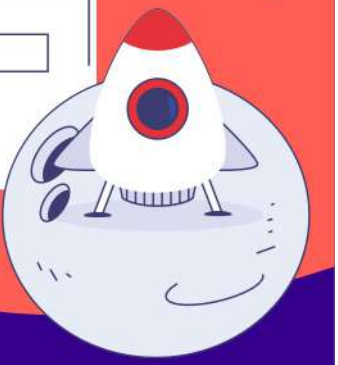
BRAIN PLAY

HELP THE ASTRONAUT





GET BACK TO HIS SHIP →



SPACE PUZZLE

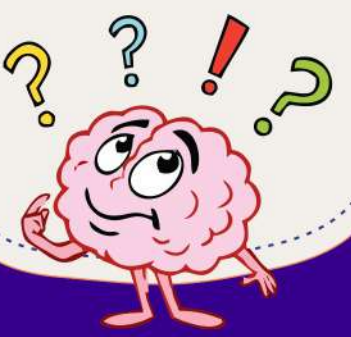
Complete the word search

Y	W	A	Z	X	H	D	G	U	F	O
X	E	G	S	T	A	R	J	Z	W	Y
A	A	Y	T	A	G	M	A	B	R	Y
S	R	H	Y	P	Y	G	Y	S	U	N
T	T	B	U	L	P	K	M	L	G	Z
R	H	D	Y	A	L	I	E	N	X	R
O	M	O	O	N	H	B	V	U	T	O
N	X	U	V	E	W	N	Z	P	J	C
A	R	H	J	T	X	R	G	X	J	K
U	N	T	E	L	E	S	C	O	P	E
T	O	G	T	W	X	Y	E	H	D	T

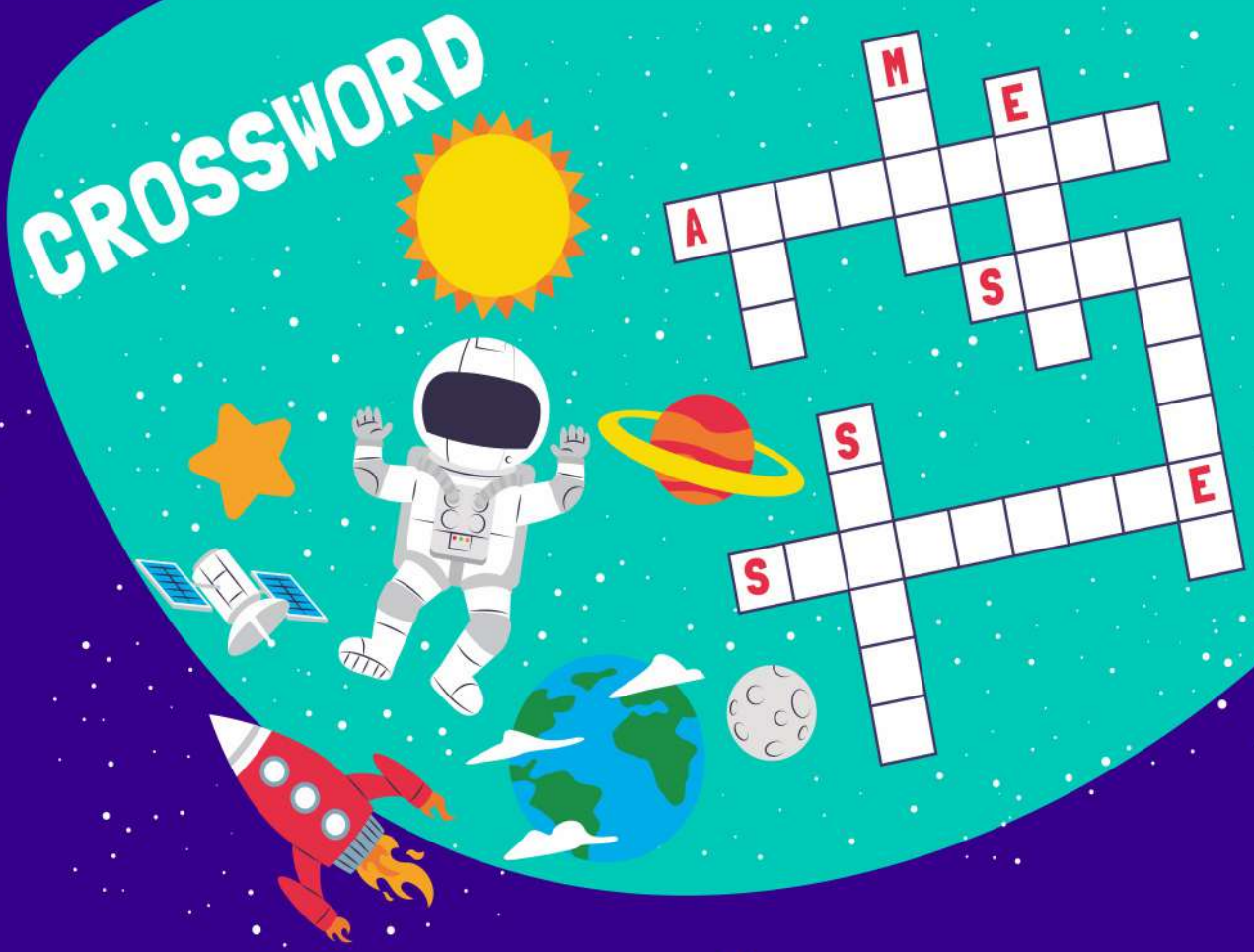
STAR SUN ALIEN ASTRONAUT MOON
UFO ROCKET PLANET TELESCOPE EARTH

What Am I?

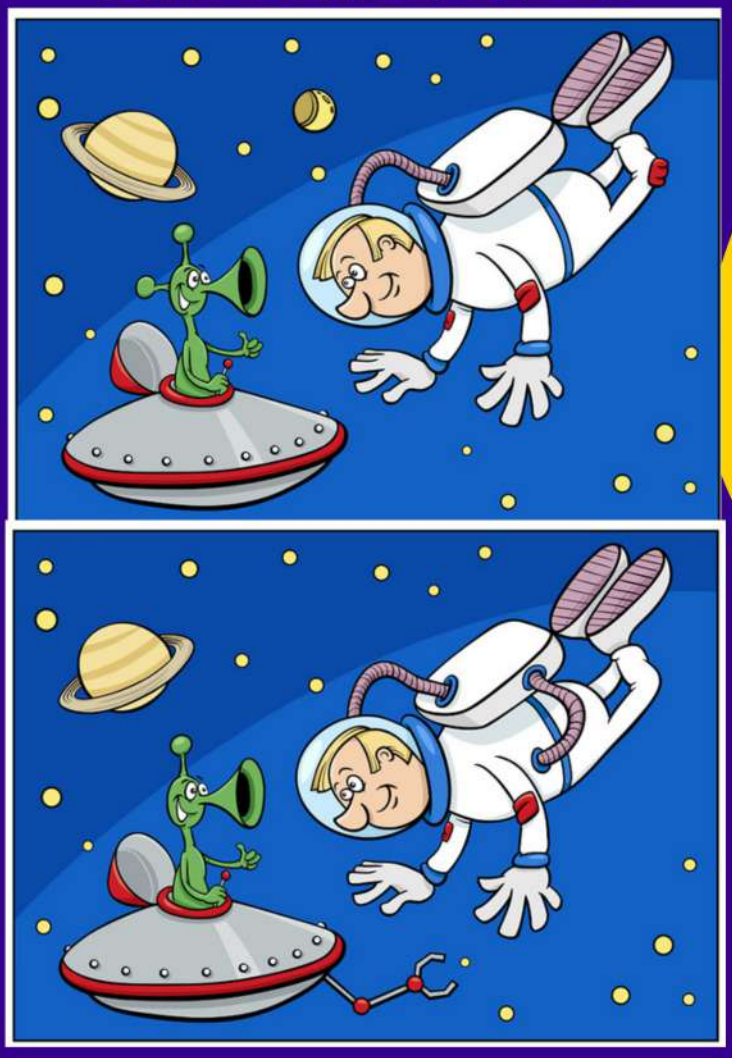
I can be looked through but
I'm not a window,
I have your eye pressed to me
but I'm not a door peephole,
I'm often placed on a tripod
but I'm not a camera,
I help you see things that are
far away but I'm not a pair of
binoculars,
I'm often pointed at the sky
but I'm not a satellite dish!



CROSSWORD



Find 6 differences



Using just the letters in the word below, can you make atleast 12 new words?

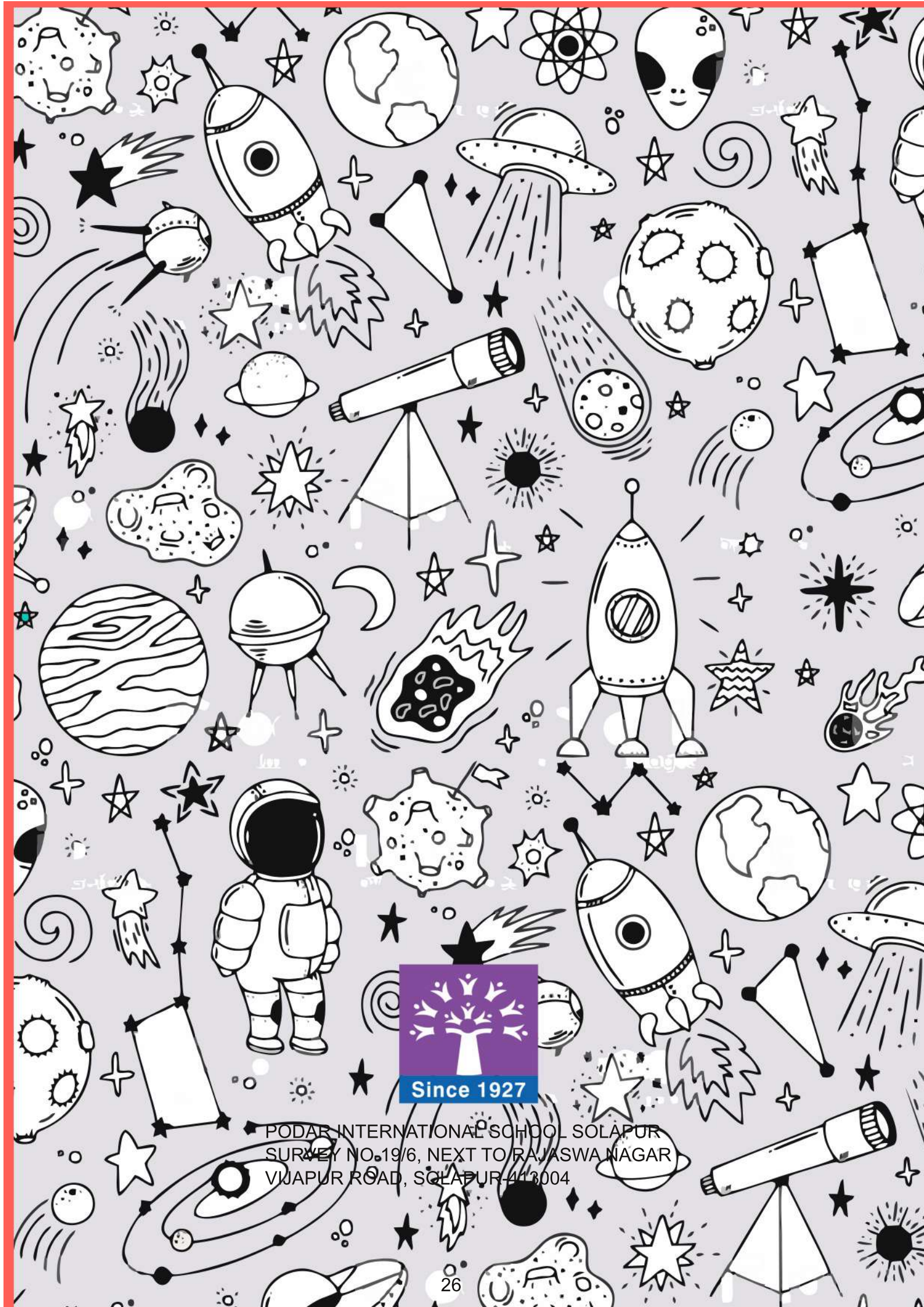
RULES: You may only use a letter as many times as it is shown in the key word. Each word must be atleast 4 letters long.

GOOD LUCK!

ASTEROID

Riddle

I am bigger than Venus
but smaller than Uranus.
I am a living rock.
What am I??



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