

# THE QURRIO

Mag

## The Earth & Beyond



Volume 1 | 2022  
PIS WALUJ



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## FROM THE PRINCIPAL'S DESK

***The focus of education should not be to suppress information, but kindle the thirst of knowledge.***

*Post pandemic, education has undergone phenomenal changes. Yet, the intrinsic values and principles have generally remained unchanged.*

*Education in the present context refers to becoming lifelong learners, so that we remain curious and inquisitive throughout our lives and find the answers by acquiring knowledge continuously. We empower our children by harnessing and developing their skills to solve problems by applying the acquired knowledge. Every child should consider every day as an opportunity to change things for the better and live up to the motto of the school - 'Learn, Lead, Innovate & Succeed'.*

***The Qurio Mag Volume 1 – The Earth & Beyond*** showcases the literary and creative presentation of visual and performing arts of the young minds. With the support and co-operation of all the stakeholders, every Podarian authenticates the collective strength of the Podar International School philosophy that enables them to lead & be the instrument of change and become an achiever and a harbinger of hope for a better tomorrow.

*Our young learners and passionate educators are determined not to leave any stone unturned in their pursuit of academic excellence and keep the flag of Podar International School flutter high proclaiming its motto – **Service Before Self.....***

*Mr. Louis Rodrigues  
Principal*

# CHRONICLES OF SPACE



## Beyond the Earth

“The earth needs you  
To change your ways,  
Month by month  
And day by day”

Learning about the earth and beyond is a wonderful way of understanding the world and how it exists in our universe. Planet is the only one that we have discovered to have substantial lifeforms on it, it is still just a small part of cosmos. Let's go on a journey from the 'pale blue dots' known as planet earth and zoom out to the other planets in the solar system. There are eight of them now, and there used to be nine. we'll learn some fun facts about the celestial bodies and compare them to our planet. But it doesn't end there. We'll also look at what lies beyond the solar system, and how we know what out there when it's so far away. There are a lots of unanswered questions about the universe , which means there's a still a lots of mysteries yet to solve!

Ankit Hawale  
Grade 10 Einsteins



## ISRO – Mangalyan Series



The Mars Orbiter Mission (MOM), also called Mangalyan was a space probe orbiting Mars since 24 September 2014.

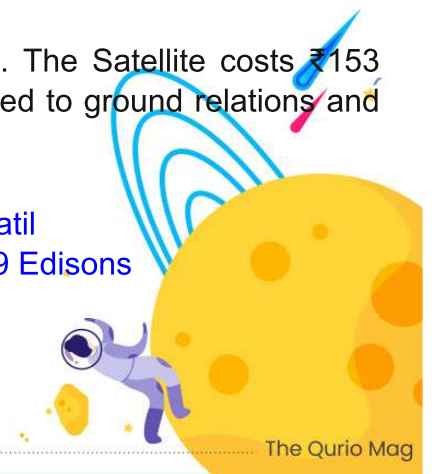
It was launched on 5 November 2013 by the Indian Space Research Organisation (ISRO). It made Indian the first Asian nation to research Martian orbit and the first nation in the world to do so on its maiden attempt. On 23 November 2008, the first public acknowledgement of an uncrewed mission to Mars was announced by then – ISRO Chairman G. Madhavan Nair.

The Mars Orbiter Mission probe lifted – off from the First Launch Pad at Satish Dhawan Space Centre, Andhra Pradesh, using a Polar Satellite Launch vehicle (PSLV) rocket (25 at 09:08 UTC on 5 November 2013). After a 298 – day transit to Mars, it was put into Mars orbit on 24 September 2014.

Prime Minister Manmohan Singh approved the project on 3rd August 2012, after the Indian Space Research Organisation completed ₹125 crore (US \$16 Million) of required studies for the orbiter.

The total project cost may up to ₹454 crore (US \$57 million). The Satellite costs ₹153 crore (US \$19 million) and rest of the budget has been attributed to ground relations and relay upgrade that will be used for other ISRO projects.

Nitali Patil  
Grade 9 Edisons



The Quirio Mag



## Mission Mangalyan



The Mars Orbiter Mission (MOM), informally called Mangalyan is a Mars orbiter launched into Earth orbit on 05 November 2013 by Indian Space Research Organization (ISRO). The mission is the “technical demonstration” project aiming to develop the technologies required for design, planning, management and operations on an interplanetary mission.

The Mars Orbiter Mission probe lifted-off from the first Launchpad at Satish Dhawan space centre, Sriharikota, Andhra Pradesh using a Polar Satellite Launch Vehicle (PSLV) rocketc25 at 09:08 UTC (02:38 p.m. IST) on 05 November 2013. The launch window was approximately 20 days long and started on 28 October 2013. The MOM probe sent about a month in Earth’s Orbit, where it made a series of seven altitude raising orbital manoeuvres before trans-Mars injection on 30 November 2013 (UTC).

It is Indian’s first interplanetary mission if successful, ISRO would become fourth space agency to reach Mars, after the Soviet Space Program, NASA and European Space Agency.

The spacecraft is being currently monitored from the Spacecraft Control Centre at ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bangalore with support from Indian Deep Space Network (IDSN) antenna at Banglore.

### History

The MOM mission concept began with a feasibility study in 2010, after the launch of lunar satellite Chandrayaa-1 in 2008. The government of India approved the projects on 3 August 2012, after the Indian Space Research Organization completed ₹125 crore of required studies for the orbiter. The total project cost may be up to ₹454 crore. The satellite cost ₹153 crore and rest of the budget has been attributed to ground stations and relay upgrades that will be used for other ISRO projects.

The space agency had initially planned the launch on 28 October 2013 but was postponed to 5 November 2013 following the inability of ISRO’s spacecraft tracking ships to take up predetermined positions due to poor weather in the Pacific Ocean.

Aditi Dugad  
Grade 7 Ramanujans





## Indian Space Research Organization (ISRO)

The Indian Space Research Organisation is the national space agency of India headquartered in Bangalore. It operates under the department of space which is directly overseen by the Prime Minister of India, while the chairman of ISRO acts as the executive of DOD as well.

### Chandrayan-1

Chandrayaan -1 was the first Indian lunar probe under the Chandrayaan program. It was launched by the Indian Space Research Organisation in October 2008, and operated until August 2009. This mission was a major boost to India's space program. The mission included a lunar orbiter and an impactor. India launched the spacecraft using a PSLV-XL rocket on 22 October 2008 at 00:52 UTC from Satish Dhawan Space Centre, at Sriharikota, Andhra Pradesh. The estimated cost for the project was rupees 386 crore. Chandrayaan-1 operated for 312 days as opposed to intended 2 years, however the mission achieved most of its scientific objectives including detecting presence of Lunar Water.

### Mars Orbiter Mission (MOM)

The Orbiter Mission, also called as Mangalyaan was a space probe orbiting Mars since 24 September 2014. It was launched on 5 November, 2013 by the Indian Space Research Organisation. It is India's first interplanetary mission and it made it the fourth space agency to achieve Mars Orbit, after Roscosmos, NASA, and the European Space Agency. The Mars Orbiter Mission probe lifted off from the first launch pad at Satish Dhawan Space Centre, using a PSLV rocket C25 at 09:08 UTC on 5 November 2013.

The launch window was approximately 20 days long and started on 28 October 2013.

Some achievements of ISRO are as follows:-

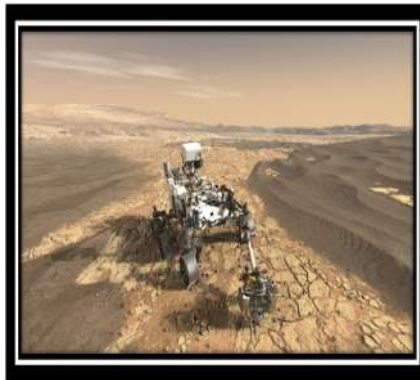
- Aryabhata
- SLV-3
- PSLV
- Chandrayaan-1
- Mars Orbit Mission (MOM)
- GSLV
- Mission Shakti
- Rakesh Sharma's – Sare Jahan se Achha

Riya Ghatge  
Grade 9 Edison

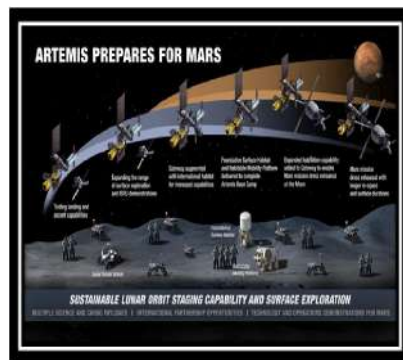
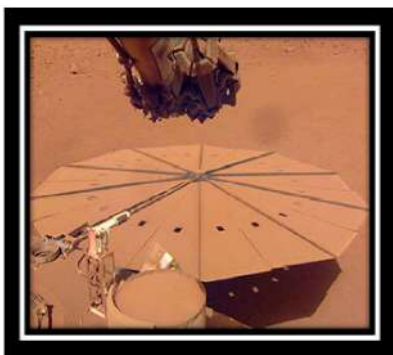




# Mars Exploration



The Mars 2020 Perseverance Rover mission is part of NASA's Mars Exploration Program, a long-term effort of robotic exploration of the Red Planet. The mission addresses high-priority science goals for Mars exploration, including key questions about the potential for life on Mars. Perseverance takes the next step by not only seeking signs of habitable conditions on Mars in the ancient past, but also searching for signs of past microbial life itself. The rover introduces a drill that can collect core samples of the most promising rocks and soils and set them aside in a "cache" on the surface of Mars. A future mission could potentially return these samples to Earth. That would help scientists study the samples in laboratories with special room-sized equipment that would be too large to take to Mars. The mission also provides opportunities to gather knowledge and demonstrate technologies that address the challenges of future human expeditions to Mars. These include testing a method for producing oxygen from the Martian atmosphere, identifying other resources (such as subsurface water), improving landing techniques, and characterizing weather, dust, and other potential environmental conditions that could affect future astronauts living and working on



Perseverance was timed for a launch opportunity between July 30 and Aug. 15, 2020, when Earth and Mars were in good positions relative to each other for landing on Mars. That is, it took less power to travel to Mars at that time, compared to other times when Earth and Mars are in different positions in their orbits. To keep mission costs and risks as low as possible, the Mars 2020 design is based on NASA's successful Mars Science Laboratory mission architecture, including its Curiosity rover and proven landing .

Zeba Shaikh  
Grade 10 Einsteins





## The Project to pry open : DAVINCI+

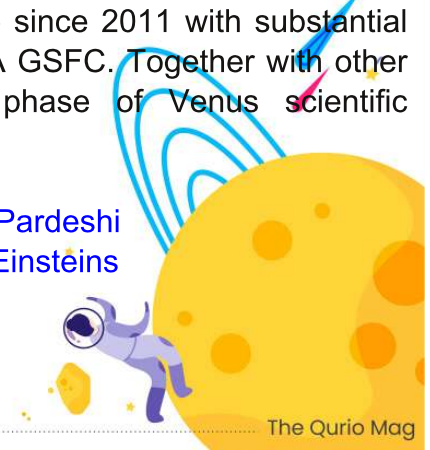
Venus is the second planet from the Sun, orbiting it the closest to Earth. It is sometimes called Earth's "sister" or "twin" planet as it is almost as large and has a similar composition.

The Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging (DAVINCI) mission was selected in June 2021 as part of the NASA Discovery Program to explore Venus through remote sensing, in-situ chemistry measurements, and near-surface imaging. This mission will investigate the evolution of Venus' atmosphere using an architecture designed to optimize science-relevant measurements within the atmosphere and



Currently slated to launch in June 2029, DAVINCI's Carrier-Relay-Imaging Spacecraft (CRIS) will conduct Flybys of Venus in January and November of 2030 where it will acquire remote sensing of the upper Venus atmosphere and surface. The DAVINCI concept has been in development at NASA Goddard Space Flight Center (GSFC) since 2011 with substantial hardware fabrication and test. The project is managed by NASA GSFC. Together with other planned Venus missions, DAVINCI will usher in a new phase of Venus scientific understanding via the first in situ measurements since 1985.

Vaishnavi Pardeshi  
Grade 10 Einsteins





## Latest Space News

### THE UNIVERSE TODAY

Space & Astronomy News

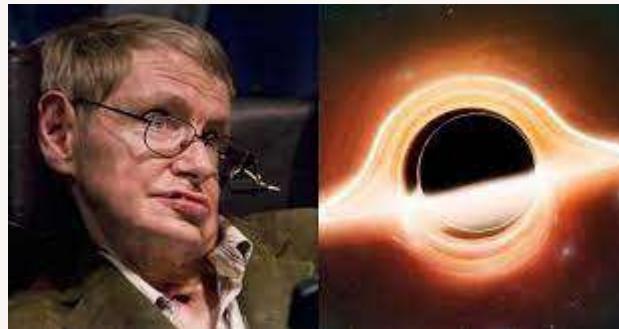
#### 1. November full moon 2022: Full Beaver Blood Moon gets a total lunar eclipse



November's full "Beaver Moon" will occur on Nov. 8 and will undergo a total lunar eclipse. The total phase will be visible on almost the entire night side of Earth, from the eastern half of Russia and Kazakhstan China and eastern India to North America and the western half of South America.

The moon becomes officially full at 6:02 a.m. EST (1002 GMT), according to the U.S. Naval Observatory. Eclipses happen because sometimes the full moon, which occurs when the moon is on exactly the opposite side of the Earth from the sun, enters the Earth's shadow. Most of the time this doesn't occur because the moon's orbit is slightly inclined to the plane of Earth's orbit, so the moon "misses" the shadow. Lunar eclipses often accompany solar eclipses, and this one is no exception – there was a partial solar eclipse in October, at the new moon.

#### 2. Dead and alive at the same time: Black holes have quantum properties



Black holes have properties characteristic of quantum particles, a new study reveals, suggesting that the puzzling cosmic objects can be at the same time small and big, heavy and light, or dead and alive, just like the legendary Schrödinger's cat.

The new study, based on computer modeling, aimed to find the elusive connection between the mind-boggling time-warping physics of supermassive objects such as black holes and the principles guiding the behavior of the tiniest subatomic particles.

# THE UNIVERSE TODAY

Space & Astronomy News



The study team developed a mathematical framework that placed a simulated quantum particle just outside a giant simulated black hole. The simulation revealed that the black hole showed signs of quantum superposition, the ability to exist in multiple states at once — in this case, to be at the same time both massive and not massive at all.

## 3. Pictures from space! Our image of the day



### Falcon Heavy side booster returns to Earth after a successful launch

Tuesday, November 1, 2022: One of the side boosters of SpaceX Falcon Heavy rocket that lofted a classified U.S. military satellite into orbit on Tuesday (Nov. 1) has been photographed during its return to Earth.

The Tuesday launch was only the fourth for Falcon Heavy, the most powerful rocket currently in service, and first since 2019. The flight also represented the 50th SpaceX mission of 2022 overall, as the company's lighter, workhorse rocket Falcon 9 has been lifting off on a weekly basis this year.

The launch of Heavy went without a hitch with both of the rocket's side boosters returning to Earth smoothly and landing at neighboring launch pads at NASA's Kennedy Space Center in Florida. The rocket's central stage didn't soft land this time as all of its fuel was needed to directly insert the secret USSF-44 satellite into the geostationary orbit 22,000 miles (36,000 kilometers) above Earth's surface. – Tereza Pultarova

Om Bawskar  
Grade 4 Nehrus



# THE UNIVERSE TODAY

Space & Astronomy News



## 10 Facts of Space

1. Space is completely silent.
2. The hottest planet in our solar system is Venus its temperature is about 450 degree C.
3. A full NASA spacesuit costs \$12,000,000.
4. The sun's mass takes up 99.86% of the solar system.
5. One million earth can fit inside the sun.
6. There are more trees on the earth than stars in milky way.
7. The sunset on the Mars appears blue.
8. There are more stars in universe, than grain of on earth.
9. One day on Venus is longer than one year.
10. You wouldn't be able to able to walk on the Jupiter, Saturn, Uranus or Neptune because they have no solid surface.

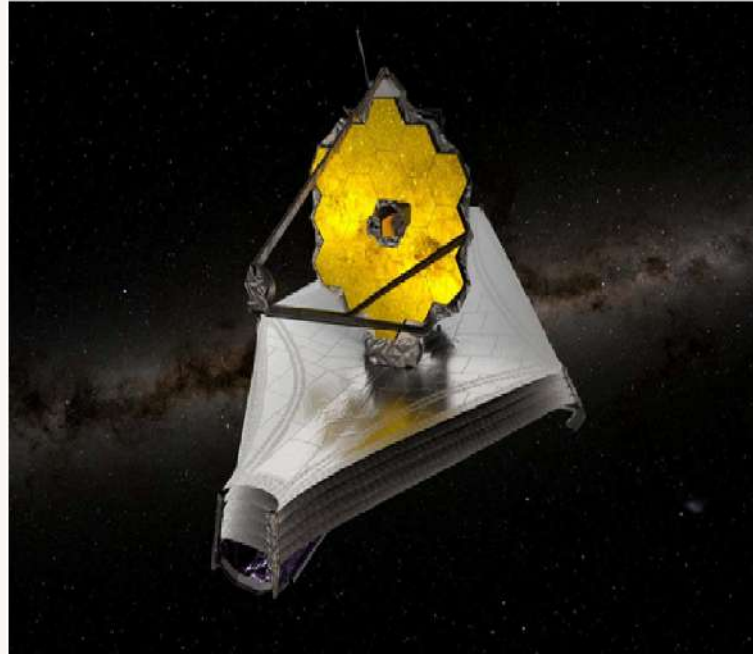
Harshad Jadhav  
Grade 9 Edisons

# THE UNIVERSE TODAY

Space & Astronomy News



## James Web Space Telescope - By NASA



James web telescope is worlds powerful telescope (made by NASA = it cost is around = 10 Billion “time taken to made this telescope is around 2.5 years.” “The biggest thing of it is that we can see 13.13 year back ago but only a bit of it. The telescope have discovered on planet in which the telescope have found H<sub>2</sub>O it’s an exoplanet. It operate in only the temperature – 266.75. It is far from our earth about 1.5Lakh long at the point called L2 point. It has its focal length around 1.4m which is too much. And the main mirror is made up of Gold 24 carat cold and its weight is 705 kg. It can take the photos at the range of 0.6 to 28 micrometres which is ‘So nice’. There are two camera inserted in its first is NIR can and second is MIR cam. NIR is small and MIR is of big rays.

The first photo it have taken is deep field SMACS 0723 (NIR cam) and the Second photo was of 5 Galaxy. When 5Galaxies are together they are called as Quintet One of the Galaxies was 40m light years far and other 4 were 290m light year far. And it have clicked 4 photos also but we can say that are photos but NASA is taking interest in it because it is the planet name is WASP-9613 It is an exoplanet. Exoplanets are planets which are out of our solar system. I know it will be so help full to us in features because the telescope is very nice we will know our milky way much so it can help us.

Vaibhav Varade  
Grade 7 Ramanujans

The Qurio Mag

# 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)

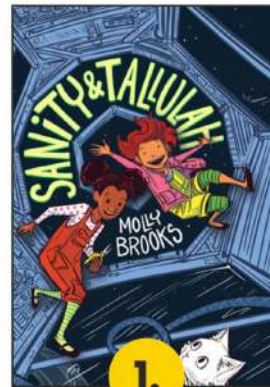
Three young house flies stowaway aboard the Apollo 11 flight to the moon.

### 7. Mission Mangal (2019)

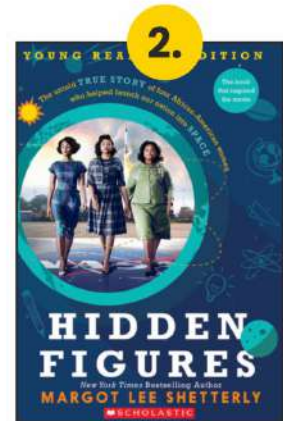
Based on true events of the Indian Space Research Organisation (ISRO) successfully launching the Mars Orbiter Mission (Mangalyaan), making it the least expensive mission to Mars.



## Books



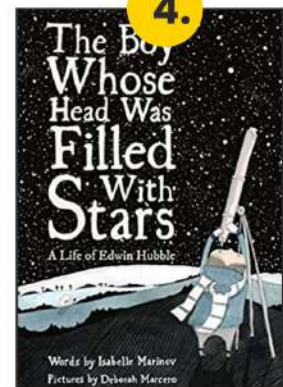
Sanity & Tallulah  
Molly Brooks



Hidden Figures  
Young Readers'  
Margot Lee Shetterly



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



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



The Kid Who Came  
From Space  
- Ross Welford



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



# Review

Movies & Books

Title of the Book/Movie:

**The Earth and Beyond**

Movie/Book Summary:

Earth and Beyond is a science fiction massively multiplayer online role – playing game (MMORPGI) developed by Westwood studios and published by Electronic Art (EA). The game was released in September 2002 in the United State. EA shut down Earthand Beyond on 22 September 2004. It was the last game developed by Westwood studio.

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: **Tejas Sapkal**  
**Grade 8 Bhaskaracharyas**

Title of the Book/Movie:

**The Solar System**

Movie/Book Summary:

The book introduces the solar system, describing how it was formed, its elements, including the Sun, the planets, meteroids, asteroids, and comets, and the telescopes and spacecrafts used in exploring it.

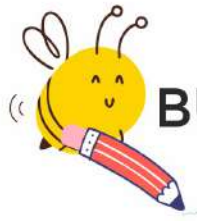
The book begins with a lineup of the usual suspects. The way the chapters move from inner to outer planets is no surprise, but the called-out details are cunningly illustrated and plenty fascinating.

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: **Akash Gore**  
**Grade 9 Edisons**



## BUZZING POETS

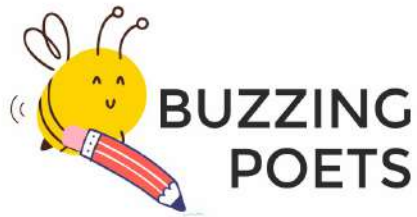
### Near The Horizon

As I sit here; near the horizon  
I marvel at the bespangled stars  
And the luminous moon  
Oh! What a frabjous sight to see.

As I sit here; near the horizon  
I experience the ineffable beauty  
Of the night;  
And had an epiphany of how  
Boundless the universe is

As I sit here; near the horizon  
Now, when the moon slowly starts to set  
And the sun begins to rise  
I think to myself "had I been  
Here the whole night?"

Aarya Deshpande  
Grade 8 Bhaskaracharyas



## The Brightest Bizarre

Where the lost star had gone?

It was the star which lightened the world most,  
It was shimmering in the darkness so far,  
It was the biggest one and the brightest bizarre....

Where the lost star had gone?  
Which shined upon us in the dark,  
Has it gone to a world so far?

Was it really the biggest one and the brightest bizarre?

Where the lost star had gone,  
The natural shining wonderful star,  
Luminous, sparkling, glittering star,  
It was the biggest one and the brightest bizarre....

Where the lost star had gone?  
The globe of hot and glowing gas,  
Residing almost a million miles far,  
It was the biggest and the brightest bizarre.....

Ayush Rawat  
Grade 10 Einsteins



# SPACE Exploration



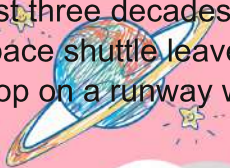
## History of Space Travel

The first earthling to orbit our planet was just two years old, plucked from the streets of Moscow barely more than a week before her historic launch. Her name was Laika. She was a terrier mutt and by all accounts a good dog. Her 1957 flight paved the way for space exploration back when scientists didn't know if spaceflight was lethal for living things.

Humans are explorers. Since before the dawn of civilization, we've been lured over the horizon to find food or more space, to make a profit, or just to see what's beyond those trees or mountains or oceans. Our ability to explore reached new heights—literally—in the last hundred years. Airplanes shortened distances, simplified travel, and showed us Earth from a new perspective. By the middle of the last century, we aimed even higher.



Our first steps into space began as a race between the United States and the former Soviet Union, rivals in a global struggle for power. Laika was followed into orbit four years later by the first human, Soviet Cosmonaut Yuri A. Gagarin. With Earth orbit achieved, we turned our sights on the moon. The United States landed two astronauts on its stark surface in 1969, and five more manned missions followed. The U.S.'s National Aeronautics and Space Administration (NASA) launched probes to study the solar system. Manned space stations began glittering in the sky. NASA developed reusable spacecraft—space shuttle orbiters—to ferry astronauts and satellites to orbit. Space-travel technology had advanced light-years in just three decades. Gagarin had to parachute from his spaceship after reentry from orbit. The space shuttle leaves orbit at 16,465 miles an hour (26,498 kilometers an hour) and glides to a stop on a runway without using an engine.



Sarvesh Jadhav  
Grade 8 Bhaskaracharyas

# SPACE Exploration



## Planets in our Solar System

A planet is a celestial body inside the solar system that is in orbit around the Sun has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium shape and has cleared the neighbourhood around its orbit.

### Importance:-

Its gravitational pull holds the Solar System together and its light shines upon us, giving us the ability to survive. Without the Sun, we would not be able to survive. The Sun also affects other planets too.

### Let's hear a dialogue between Planets:-

- 1)Mercury - I am the closest planet to the Sun. Even I don't have moon.
- 2)Venus - I am the brightest planet. I too don't have moon.
- 3)Earth – I am the only planet with life.
- 4)Mars – I am also known as red planet and also forth farthest planet from Sun.
- 5)Jupiter – I am the biggest planet. I am having 80 moons.
- 6)Saturn- I am having shiny rings. My biggest moon is Titan.
- 7)Uranus- I am the coldest planet
- 8)Sun- I am 4.6 billion years old. I give life to all on the Earth.



Saanvi Paralkar  
Grade 5 Tagores



## 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)
- Aryabhata 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/fevikwik 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.

All you need to make these easy-to-assemble

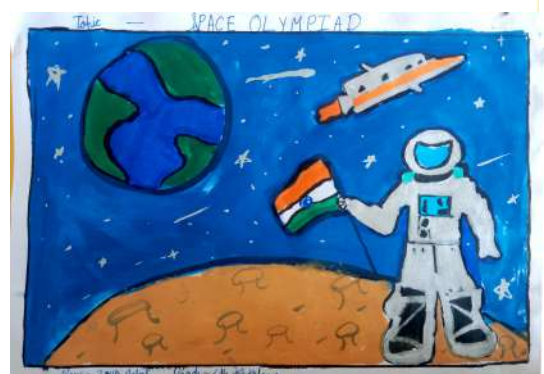
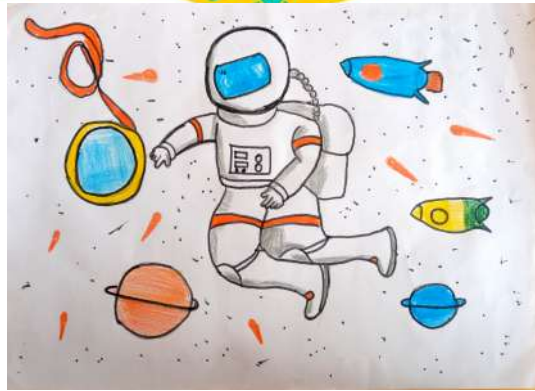
Martian snackers are:

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

## MARTIAN SNACKERS



# INTERSTELLER ART GALLERY



# SPOTLIGHT @ PIS









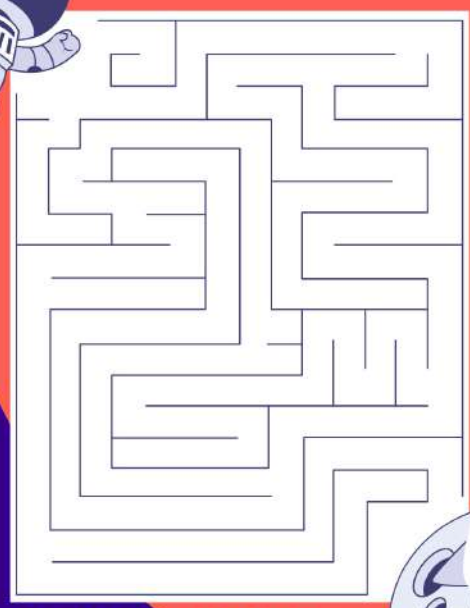
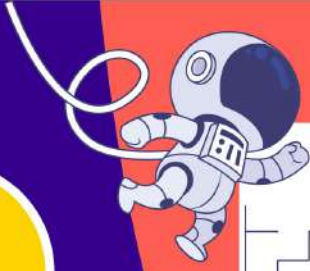




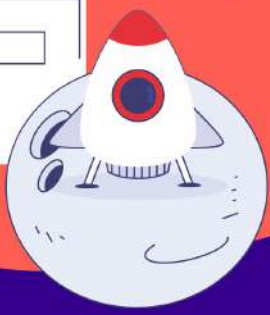


# BRAIN PLAY

← 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

### What Am I?

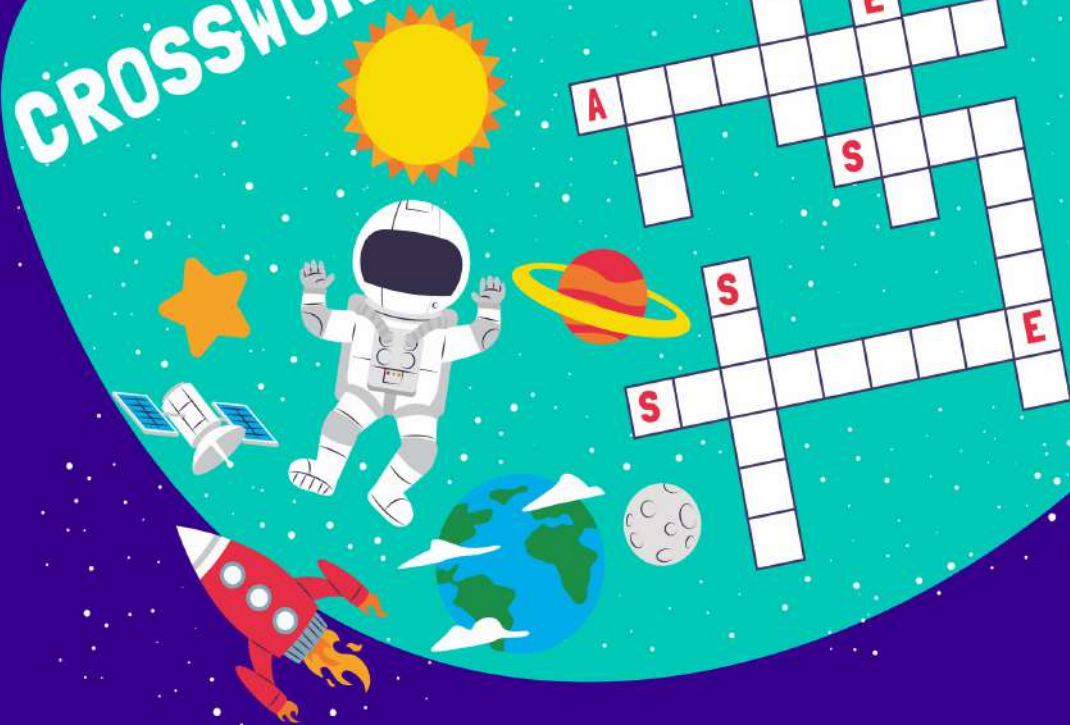
I can be looked through but I'm not a window,  
 I have your eye pressed to me but I'm not a door peephole,  
 I'm often placed on a tripod but I'm not a camera,  
 I help you see things that are far away but I'm not a pair of binoculars,  
 I'm often pointed at the sky but I'm not a satellite dish!



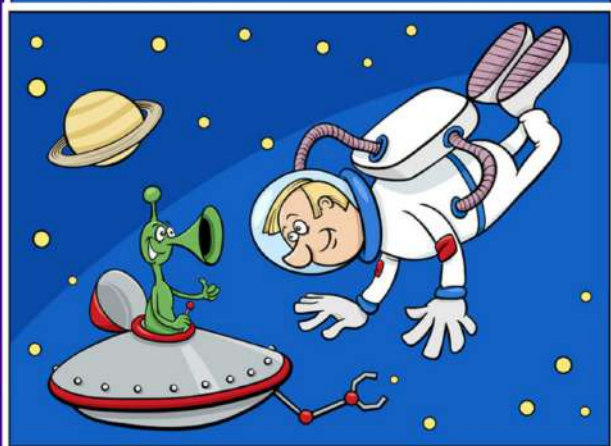
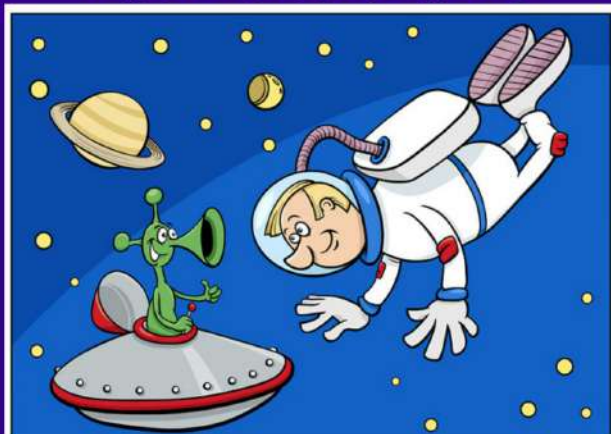
- STAR UFO
- SUN ROCKET
- ALIEN PLANET
- ASTRONAUT TELESCOPE
- MOON EARTH



# CROSSWORD



## Find 6 differences



Using just the letters in the word below, can you make at least 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 at least 4 letters long.

**GOOD LUCK!**

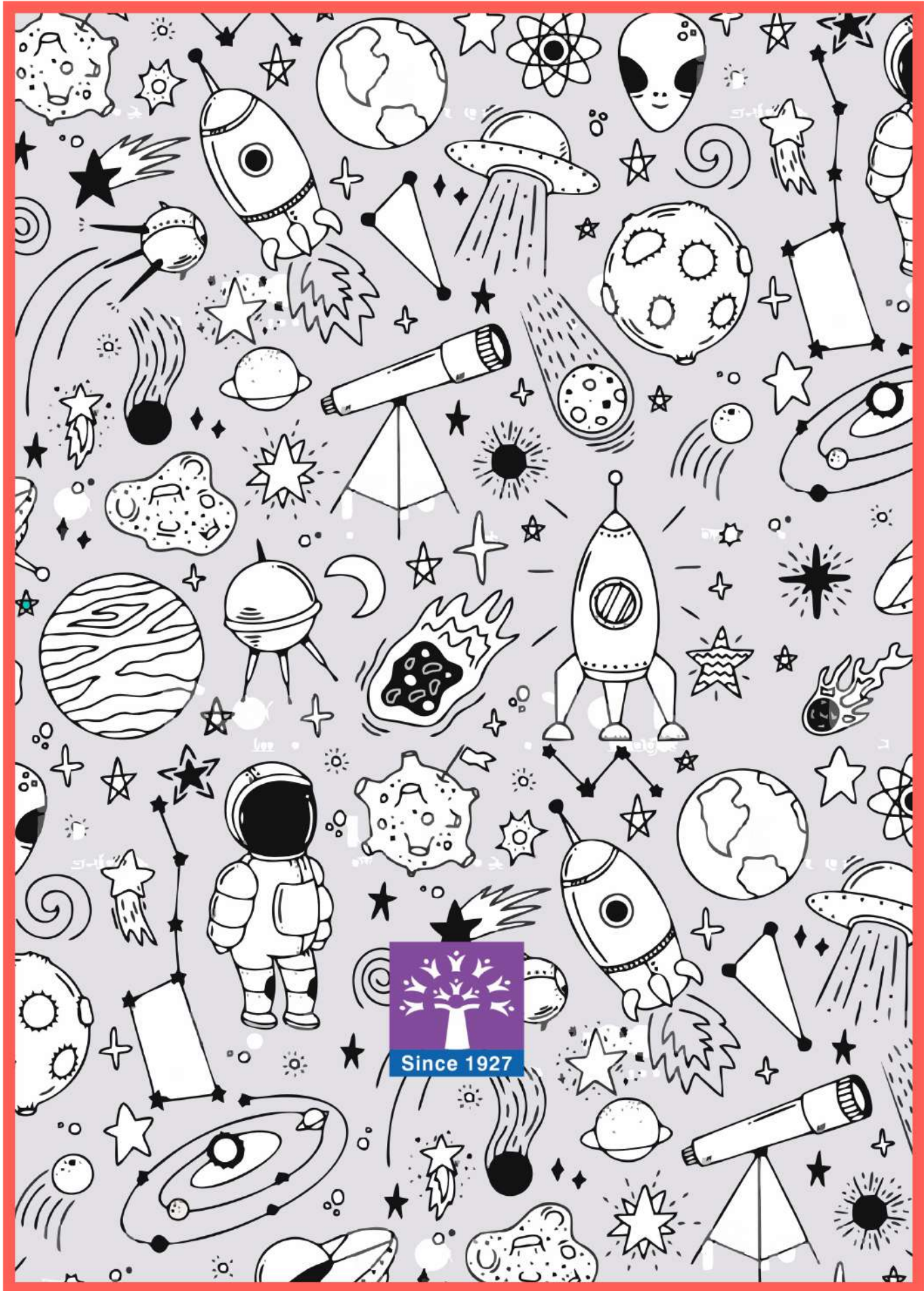
## ASTEROID

### Riddle

I am bigger than Venus  
but smaller than Uranus.

I am a living rock.

What am I??



Since 1927