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There is no strife, no prejudice, no national conflict in outer space as yet. Its hazards are hostile to us all. Its conquest deserves the best of all mankind, and its opportunity for peaceful cooperation may never come again.
- John F. Kennedy

In the next issue >>>



CAREERS and PROFESSIONS

THINK TANK

1. Which planet has the biggest moon?
2. Who was the first person to land on the moon and when did he land?
3. Which planet was found by accident?
4. Which was the largest rocket sent to space?
5. When was Mangalyaan launched?

Ganesh, 5th Grade

Why we live on Earth...

Once upon a time there was a town called Galaxyortown. The people of this town went up to the galaxy and stayed there for 12hrs in a day. The rest of the 12hrs they lived in their city on earth. The government on earth had a department called The Armstrong Visitor. This department took the people to the galaxy and back. In the Galaxy, people ate milk products because, they got lots of milk from the Milky Way. During one such trip, the rocket was not in good condition. A boy named Joseph fell from the rocket. The boy had an adventurous landing. The accident scared the people on the earth and the government decided to keep the people only on earth from that time.

Phaveek, 5th Grade

A **STAR** is a huge sphere of very hot gas. A star is mostly made up of hydrogen and helium. A group of stars form a constellation also form a shape. There are more than 48 recognized Constellations. There are about 9000 stars in the universe.

Gayathri, 7th Grade

ENTERTAINMENT SPACE

We see space on T.V all the time, not just in documentaries but also in movies. Take the recent movie Gravity for example which won 7 OSCARS!! YES, 7. In the olden days space travel didn't quite kick off, but there were famous novels such as "Around the Moon" by Jules Verne. The turning point was during the space race, a technology race between the U.S.A and the U.S.S.R. After this many movies suddenly started to be based on space such as 2001: A Space Odyssey or The famous Star Wars. Space also took a special place in kid's movies such as Toy Story where Buzz is a space toy and he thinks he's from space. These days, in movies, technology has made it possible to show space in an interesting manner using graphics.

Yeshwant, 8th Grade



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I AM WOW!



Current issue – SPACE>>>

BANG BANG!

Big Bang marks the origin of our Universe. One instant, our Universe was infinitesimally small and dense. The next instant, our Universe started expanding and very soon, it became the size of a galaxy. Three minutes after the explosion, formation of matter began. The simplest element 'Hydrogen' was the most common element. Then, very slowly, liquids and solids began to form. About 10 billion years after the beginning, big asteroids hit each other and got clubbed with each other into big balls to eventually become planets.

FOCUS ON FACTS

- When we see galaxies moving apart, it appears red. Stretched light waves look red. This change in the light is called 'Red Shift'.
- India's ISRO recently launched a very successful mission to Mars. This is a great source of inspiration for us to go further in space research.
- Some scientists believe that the universe will expand forever, while some believe that eventually, the expansion will stop and the universe will start to shrink.

Tejas, 5th Grade

SECRETS

Space holds many secrets. Humans can be stretched into spaghetti-strings there. They can be boiled, burnt or even frozen solid in space: that's why astronauts wear protective clothing. When people think of space, they think of weightlessness, nothingness, stars, astronauts, rockets, satellites, and silence. A black hole is formed by a dead star. It turns you in to spaghetti like shape and you disappear. The most beautiful are The Plates and the Milky Way galaxy. This galaxy was named so because the ancient Greeks believed these were a streak of milk. There are also many galaxies in space. The solar system is a part of the Milky Way galaxy.

Aditya Rajesh, 5th Grade

S P A C E

On a cloudless night, you can see thousands of stars. Space is the name we give to huge empty areas between the atmospheres of stars and planets. Apart from a few rocks, space is sprinkled only with dust and gas. Space is black because there is nothing there to reflect the light of the sun. From space, Earth looks lit up because light reflects off the sea, and land, and the particles in our atmosphere. Many people wonder about the age of the Universe. The experts believe it's less than 14 billion years old. Astronomers measure space in light years. One light year is the distance light travels in one year: that's 10 million million km (6 million million miles). Space is therefore an interesting place full of mysteries.

-Ananth .P. Ashok, 5th Grade

By Ambika Bhattarhi,
6th Grade, Abacus Modisari
School



SHINING STARS

Stars are huge hot balls of gases which burn for millions of years. They are formed when gases and dust particles join together by gravity. The heat generated by the stars make them shine. Their temperature reaches 100 to 1000 degree Celsius. Actually these stars are million and million kilometers away from the earth's surface. That is why they look tiny from the earth. The nearest star to the earth is the Sun. It's the only star which can be seen in the daytime. A few stars are 100 to 200 times larger than the Sun. There are different types of stars: (1) red dwarf stars - are smaller than the sun and since they are small they have very little mass; (2) giant stars - they live for the little period of time and (3) super giant stars - these stars burn out their fuel quickly and after burning the fuel they will burn out.

Manya M. 5th Grade



FILL THE SPACE

1. The Universe has many _____.
2. The Solar System is located in the galaxy called _____.
3. Planets : Mercury , Venus , _____ , Mars , Jupiter , _____ Uranus, Neptune.
4. The sun family is called the _____ System.
5. All planets are made up of rocks , metal or _____ .
6. Most of the planets are named by astronomers after _____ and _____ gods.
7. Scientists claim that _____ is no longer a planet.
8. _____ is the largest planet in the Solar System.

Pranit, 7th Grade

VERSES ON OUR UNIVERSE

This most excellent canopy, the air, look you, this brave overhanging firmament, this majestical roof, fretted with golden fire

—Hamlet, Act 2 Scene 2, William Shakespeare

Continuous as the stars that shine
And twinkle on the Milky Way
They stretched in never ending line
Along the margin of a bay;
Ten thousand saw I at a glance
Tossing their heads in sprightly dance.

—Daffodils, William Wordsworth



SPACE MYTHS

We all watch movies and read books, many of which centre around Outer Space. Stories about aliens on Mars, and people landing on the Moon. We read about their observations. We watch movies in which the graphics make Outer Space look very realistic. But out of all the things we read or watch, which is real and which is imaginary? Here are three myths about Outer Space:

1) When travelling through the Asteroid Belt, there is a 99% chance of colliding with an asteroid.

That is not actually true. Well, it's best not to take the risk. It sounds very dangerous, and the first thing that comes to a person's mind is getting hit by an asteroid. But when NASA sent a space probe through the Belt, the agency calculated the odds of it getting hit by an asteroid as one in a billion n.

2) The Sun is yellow.

The first thing a child does after drawing a picture of The Sun is reach for a yellow crayon.

The Sun is not actually yellow.

According to NASA, the Sun's temperature is 6,000°K, which makes it white. As seen from the outside of the atmosphere, the Sun does look like a white marble. The white light gets filtered through the atmosphere when it reaches Earth.

3) Unprotected astronauts explode in space.

This is not exactly true. You won't survive for very long, but you won't explode....

Exposure to space without proper protection is definitely deadly. But you can survive for up to a minute without any permanent damage if you exhale. The deoxygenating of blood, however, will kill you. And after a period of time, you will be stretched. But you won't explode.

Anjana Ashok, 8th Grade

THE FIRST FLIGHT



Jacob was a fifteen year old boy with caramel brown locks and chocolate brown eyes. He was sweet, carefree and loved by everyone. His uncle was a famous astronaut. Jacob had a fascination for space ever since he was a young. For his eighteenth birthday, his uncle asked if he would like to explore the inside of a real space ship. Jacob had already seen how the inside of a spaceship looks in museums but the very idea of going into a spaceship filled him with excitement. "Today evening I'll show you my space ship. Get ready by 5 and we'll go there." said his uncle. He couldn't believe that he was going to go inside a real spaceship. It was like a dream come true! He was barely able to stand still. As soon as they reached the spaceship, his uncle went on and on about the safety guidelines. Jacob was barely listening. His uncle just finished telling him not to touch anything as the ship was filled with fuel when Jacob pulled a huge green lever. The spaceship started its engine. A voice came from the speakers 'take off from earth in 10, 9, 8, 7...' His uncle quickly found two astronaut suits for the two of them. It was a good thing that Jacob was bigger than other boys of his age because the suits were designed for adults. Right before they could take off, Jacob and his uncle buckled themselves safely to the seats and prepared for the launch. Jacob's uncle had been to space many times before and was used to the whole procedure. But as for Jacob, he was shaking in fright and anticipation. He closed his eyes and tried to remain calm. Then they took off. It was a scary experience when they were breaking away from the earth's gravity. But once they reached away, Jacob was filled with awe. All the pictures he had seen about space were all nothing compared to the real thing. His fear was replaced with excitement. He couldn't believe his luck. That is, until his uncle started scolding him for launching an unauthorized spaceship. Jacob paid no attention at all. Upon seeing Jacob's interest and curiosity, his uncle decided to orbit the earth so that his nephew could enjoy the view better. When they saw the moon the worry about the unauthorized take off had vanished from their minds. She looked even more beautiful than what was seen from the earth. Suddenly a voice came from the walkie-talkie. "Mr. Drake you will have to return to earth immediately. Your fuel supply is running low. "Uncle, let us land on the moon right away" said Jacob as he took the wheel. Once they landed onto the moon, ground control was asked to send another spaceship to fetch them home. An hour later, another space ship arrived and took them safely back home. On reaching home Jacob asked, "How long were we drifting in space?" "Well, believe it or not, we spent nearly 1day just hovering around" said his uncle. Neither of them could believe it as it had seemed like such a short trip. They thought that it had barely been 2 hours. That was how much they enjoyed it. Jacob was addicted to the experience. He couldn't stop after just one trip. He had to go on. There was so much out there waiting to be explored. He took a special course to train as an astronaut. He passed with flying colors and was immediately allowed to work along with his uncle. He is probably somewhere out there discovering much more which mankind has never even ventured to explore. If you happen to see Jacob on your next mission to space, do say hello from all of us down here! 😊

Kavya S, 9th Grade

DID YOU KNOW?

1. Saturn's moon Titan has plenty of evidence chemicals in its atmosphere.
2. The Sun travels around the galaxy once every 200 million years – a journey of 100,000 light years.
3. Twice during Mercury's orbit, it got so close to the Sun that it seemed to go backwards in the sky.
4. From the moon, astronauts brought back 380 kg of Moon rock.
5. Jupiter has no surface for a spacecraft to land on because it is made mostly from helium gas and hydrogen.
6. Earth's atmosphere was formed from gases pouring out from volcanoes.
7. Life is known to exist only on Earth, but in 1986 NASA found what they thought might be fossils of microscopic living things in a rock from Mars.
8. A day in Mercury lasts approximately as long as 59 days on earth.

Madhumitha, 6th Grade



SPACE FARING

Space travel has gained momentum in the last century. Technology has made communicating with satellites possible. People all over the world are aware of who is exploring the outer space. **Outer space**, or simply just **space**, is the void that exists between celestial bodies including the earth. It is not completely empty, but consists of vacuum containing a low density of particles, which interacts with other matter through gravitational but not electromagnetic forces. There is no firm boundary where space begins. Humans began the physical exploration of space during the 20th century with the advent of high-altitude balloon flights, followed by manned rocket launches. Orbiting the Earth was first achieved by Yuri Gagarin of the Soviet Union in 1961 and unmanned spacecraft have since reached all of the known planets in the solar system. Due to the high cost of getting into space, manned spaceflight has been limited to low Earth orbit and the moon. In August 2012, voyager became the first man-made spacecraft to enter interstellar space. Outer space represents a challenging environment for human exploration because of the dual hazards of vacuum and radiation. Microgravity also has a negative effect on human physiology that causes both muscle trophy and bone loss. In addition to solving all of these health and environmental issues, humans will also need to find a way to significantly reduce the cost of getting into space if they want to become a space faring civilization.

Kamal, 10th Grade

