

CAPTAIN FREDDY'S EVEN MORE SPACE FACTS

Space Travelers: Here's more to learn...and possibilities to consider!

Illustrations courtesy of Joey Chou

Our planet, Earth, is part of a Solar System.

The Solar System has eight planets that orbit around the Sun.

Earth is the third planet.

To explore the Solar System, spaceships can't fly into outer space like airplanes. They need powerful rockets to break free from Earth's gravity.

The Space Shuttle's big tank carried over a million and a half pounds (756,445 kilograms) of fuel. That's as much as 140 elephants!

Once you're in space, there is no...

Gravity...That's why astronauts float around inside a spaceship.

Air...When astronauts leave the spacecraft, they must wear a space suit with a special backpack of air to breathe.

Or sound! Outer space is completely silent. Sshhhhh...



The BIGGEST thing in our Solar System is the Sun.



More than one million Earths could fit inside the Sun. Compared to all the other pictures on this page, it's a whole lot bigger! We can only show a tiny version here.

The Sun is a hot, glowing star. Its warmth and light keep all the plants and animals on Earth alive, even though it is 93,000,000 miles (149,668,992 kilometers) away.

If you could drive to the Sun in a car, it would take you more than 170 years. But your car would melt before you got there.

The CLOSEST thing to Earth is our Moon.

The Moon orbits around the Earth. It shines by reflecting light from the Sun. It's eency-weency tiny compared to the Sun. Barely a speck!



Astronauts have traveled to the Moon in about three days. They have walked on the surface.

The Moon has no wind or water, so the astronauts' footprints will last a long, long time.

The SMALLEST planet in our Solar System is Mercury.



Mercury is closest to the Sun. Like Earth, it is one of the four inner "rocky planets".

Because Mercury is smaller than Earth, it has weaker gravity.

If you weigh 50 pounds (22 kilograms) on Earth, you would only weigh 19 pounds (8 kilograms) on Mercury. Imagine how high you could jump!

The HOTTEST planet in our Solar System is Venus.

Venus is about the same size as Earth, but it's much, much hotter.

Its thick yellow clouds are made of carbon dioxide and a deadly poison called sulfuric acid.



Homesick yet?

The WETTEST planet in our Solar System is Earth.



Earth is a beautiful blue-green planet.

It's the only one with oceans and an atmosphere that we can breathe.

We love you, Earth!

The REDDEST planet in our Solar System is Mars.



Mars appears red because its soil contains a lot of iron oxide (rust). Its sky looks pink.

Beyond Mars lies the Asteroid Belt. An asteroid is a rocky space object that is smaller than a planet. Meteoroids are even smaller than asteroids.

A "shooting star" is a meteoroid that burns up as it enters Earth's atmosphere. If you see one, be sure to make a wish!

The BIGGEST planet in our Solar System is Jupiter.

Jupiter is the first of the four outer planets, known as the "gas giants". It is so huge that all the other planets in the Solar System could fit inside it.

At least 67 moons circle around Jupiter. Ganymede, the largest moon, is bigger than the planet Mercury. Europa is covered by an icy ocean.

Jupiter is the "big brother" of the Solar System. Its strong gravity captures debris entering from deep space, protecting the inner planets. Thank you, Jupiter!



The SPARKLIEST planet in our Solar System is Saturn.



Saturn is famous for its bright, swirling rings. The rings consist of icy rocks and dust.

The planet itself is composed mostly of gases. It is the only planet that is lighter than water.

If you could place Saturn in a gigantic bathtub, it would float.

The FARTHEST planets are Uranus and Neptune.

Uranus is tipped on its side. Scientists believe that a huge space object may have crashed into it long ago.

Neptune is the most distant planet from the Sun. Its orbit takes 165 times longer than Earth's.



The LITTLE KIDS of the Solar System are the dwarf planets.

Ceres is part of the asteroid belt between Mars and Jupiter.

The other four dwarf planets orbit beyond Neptune, at the distant edges of the Solar System. Billions of comets are there, too. A comet is like a huge, dirty snowball of icy gas and rock. Their tails can be millions of miles long.

The dwarf planet Pluto used to be considered a major planet. In 2006, scientists decided it was too small.

What's out past these cold, faraway planets?



Our Solar System is part of a giant galaxy of stars called the Milky Way. On a clear night, the Milky Way looks like a dim, glowing band across the sky. Beyond the Milky Way are billions of other galaxies, each with hundreds of billions of stars. Some stars appear to have planets. Some of those planets could have life on them, like our Earth.

Are there aliens out there? Do they eat bananas?

Space probes are traveling through space right now to collect information. One probe even landed on a comet! The Voyager probe has traveled far outside our Solar System. If you were aboard, our Sun would look like a small star in the distance.

Earth is like a spaceship, too. We can't feel it under our feet, but Earth rotates on its axis every day. It orbits the Sun once a year. And it flies through the universe as part of the Milky Way.

That makes YOU a space traveler, too!