

A vibrant illustration of outer space. In the bottom left corner, a large, bright orange and yellow sun is partially visible. The background is a dark blue and black space filled with numerous white stars of varying sizes. Several planets are depicted: a reddish-orange planet in the upper center, a ringed planet (Saturn) in the upper right, a reddish planet in the lower center, and a greyish planet in the lower right. A blue comet with a long tail is streaking across the middle. The text "Why is Space Exploration so Important?" is written in a large, white, bold font with a black outline, centered on the left side of the image.

Why is Space Exploration so Important?

Why is Space Exploration Important?

Many argue that space exploration is expensive and the money spent on these programs would be better spent here on Earth addressing issues such as poverty and hunger. However, there are many reasons why space exploration is important and should continue.

Here are a few reasons why space exploration is vitally important to the human race.

Space Exploration Brings New Technologies and Research

Space is a harsh environment that is not an easy place for humans to venture. It is this vulnerability that has led to the invention of various technologies that are used every day on Earth today to improve our lives. Without space programs, we wouldn't have:



GPS



Accurate weather prediction



Solar cells



Ultraviolet filters

Space Exploration Brings New Technologies and Research

An illustration of the International Space Station (ISS) orbiting Earth. The station is shown in a detailed, isometric view, featuring its complex structure of modules, trusses, and large solar panel arrays. The Earth is visible in the background, showing green continents and blue oceans. The scene is set against a dark space background with numerous white stars.

The ISS is currently one of the most cutting edge labs where medical research that requires a zero-gravity environment is taking place. This research hopes to cure diseases and prolong human lives.

Keeping a Lookout for asteroids and comets

The background of the slide is a stylized illustration of Earth from space, showing continents in green and yellow and oceans in blue. Several grey, cratered asteroids of various sizes are scattered in the dark space around the planet. The overall style is that of a children's educational book or poster.

We have discovered that throughout Earth's history, there have been collisions with asteroids that have led to extinction-level events. There are a large number of big asteroids and comets out there that have the potential to collide with Earth, causing a mass extinction. Scientists predict that it is not a matter of if another large asteroid hits, but when.

Space programs not only allow us to track some of these asteroids but can also provide us with a way of deflecting an asteroid heading our way.

Colonisation of other planets could save the human race

Humans have a terrible track record when it comes to looking after our planet. Pollution and overpopulation are two of the biggest issues currently facing our long term existence on the planet.

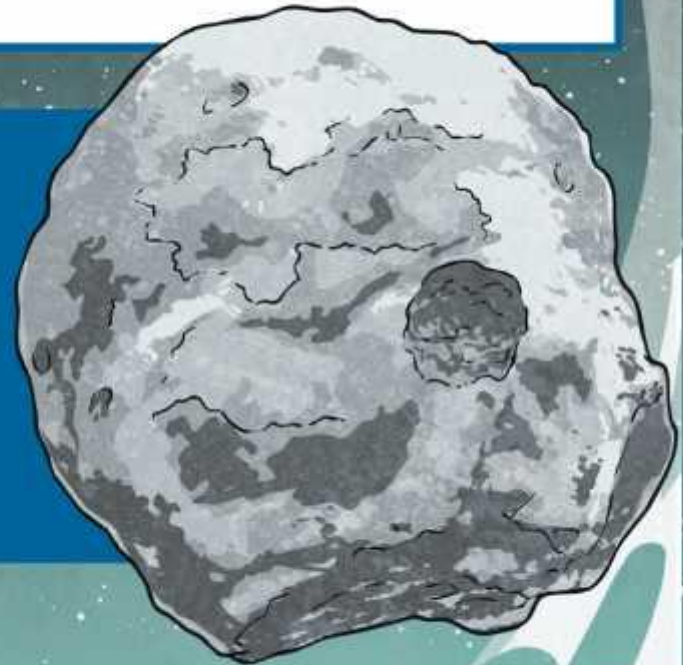
Colonisation of other planets could save the human race

We may already have found ourselves in a position of no return where the only hope of survival for our species is to start up new colonies on other planets, with Mars and the moon currently being the most promising options.

Mining in Space Could Save the World

We all know that there is a finite amount of raw materials left buried under the earth. As our cities grow and our need for various items increases, so does the pressure on our natural resources. As we develop new technologies on Earth, the strain on our natural resources continues to increase.

We have discovered by studying asteroids that have collided with Earth that they contain elements such as platinum and gold. Mining on asteroids in space would mean we could potentially have an unlimited supply of raw materials that are rare on Earth.



Communication

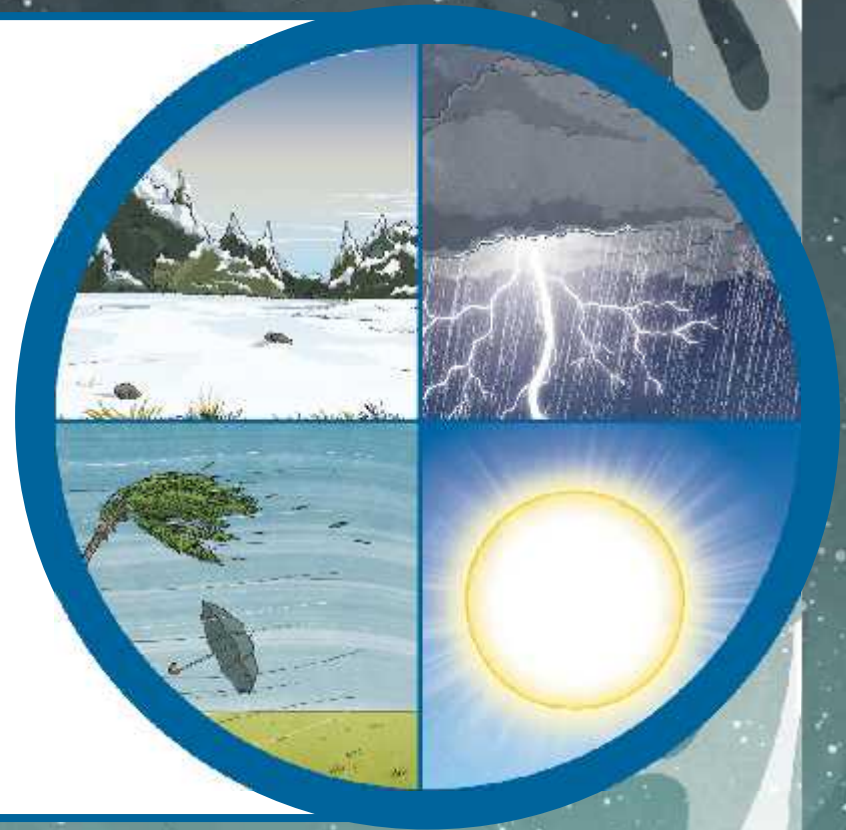
When the first communication satellite, Telstar, was launched on the 10th of July 1962, we discovered that long-distance communication would be changed forever.

Today sophisticated communications satellites are used to allow people in remote areas to remain in contact via satellite phones, to provide internet service on flights and give people access to the internet in areas that are unable to get internet in any other way.



Accurate Weather Forecasting

Accurate weather forecasting does not only make our daily lives easier to plan; it can also save lives when extreme weather is detected. The first weather satellite, Tiros, was launched on the 1st of April 1960. It used television cameras to take photos of clouds as it orbited the Earth. Although this seems like it would hardly make a difference, it was in-fact enough information to give meteorologists a much more accurate ability to forecast the weather.



Today weather satellites allow meteorologists to monitor the development of weather in areas even when it is dark!

