**S2**

Several billion years ago, when still a young planet, Mars was different. Liquid water pooled in deep craters carved out of the landscape. Rivers snaked through the jagged terrain. The planet was wrapped in a warm, thick atmosphere, and mountaintops pierced a sky not unlike our own.

**S3**

For now, we can rely on our imaginations for glimpses of early Mars. There was a lake, surrounded by miles and miles of rocky terrain. There were no grass or trees, just rusty-red rock and whatever beings might have sustained themselves on the landscape. But the view skyward would have been beautiful.

Today, Mars is a cold, barren desert world, with a wispy atmosphere and no hope for liquid water. But thanks to the work of a small, diligent rover, scientists are finding intriguing relics of the planet’s ancient past.

**S4**

Pathfinder lands on mars on the 4th of july 1997. A new combination of parachutes and inflatable airbags would be used for the first time. The airbags would inflate around the lander forming a protective cocoon and allow it to “bounce” to a safe landing.

The Pathfinder Lander carried with it another first for NASA, the first ever wheeled rover to be deployed on the Martian surface.

**S5**

This first wheels on Mars, Sojourner was small, with a mass of only 11.5 kilograms. Only designed to last for a week, the Sojourner Rover actually functioned for 85 days.

The rover sent back over 550 pictures, and the lander more than 16,500 images.

The Pathfinder mission was appropriately named, it blazed a trail for future Mars missions to follow and is considered one of NASA’s most successful as well as economical planetary missions.

**S6**

But all previous missions to Mars have investigated the surface history of the Red Planet by examining features like canyons, volcanoes, rocks and soil. However, signatures of the planet's formation can only be found by sensing and studying its "vital signs" far below the surface.

The **Interior Exploration using Seismic Investigations, Geodesy and Heat Transport** (**InSight**)[[1]](https://en.wikipedia.org/wiki/InSight" \l "cite_note-nasa201208-1) mission was a [robotic](https://en.wikipedia.org/wiki/Robotic_spacecraft) [lander](https://en.wikipedia.org/wiki/Lander_(spacecraft)" \o "Lander (spacecraft)), the first mission to explore Mars' deep interior. It [landed on Monday, Nov. 26, 2018](https://www.nasa.gov/press-release/nasa-insight-lander-arrives-on-martian-surface-to-learn-what-lies-beneath), in the Elysium Planitia region of Mars. It will investigate processes that shaped the rocky planets of the inner solar system more than four billion years ago.

**S7**

With the memories of successes of many missions nasa looks towards more fantasic horizons with the hope of even more fantastic discoveries.

**S8**

July 20th 2020

After blasting off, NASA's Mars Perseverance rover is on its way to Jezero Crater on the Red Planet where it's scheduled to land Feb. 18, 2021 .to search for signs of life, explore the planet's geology and much more.

**S9**

Ingenuity, attatched to perseverance will communicate with the rover directly after each landing.

As a technology demonstration, Ingenuity is testing a new capability for the first time: showing controlled flight is possible in the very thin Martian atmosphere.

If successful, Ingenuity could lead to an aerial dimension to space exploration, aiding both robots and humans in the future.

**S10**

Nasa s journey to mars will continue into the next decade with plans to build a deep space gateway, a space station just beyond the moon to serve as a mars pit stop.

But for now research is still underway.

**S11**

But if astronauts set foot on Mars, they may stay for months rather than days. The surface of Mars has extreme temperatures and the atmosphere does not provide adequate protection from high-energy radiation. These explorers will need shelters to effectively protect them from the harsh Martian environment and provide a safe place to call home. A mars ice home will prove a feasible solution and a comfortable environment.

**S12**

The possibility of life on Mars, till date, has continually captured the attention and interests of both scientists and non-scientists. Whether fantasy or not, it is the wish of many that one day man will be able to step on Mars comfortably.

**S13**

The future of life on Mars is not as bleak as the idea that there was life on the planet earlier. Many people are creating hypothetical programs that would support life on Mars and there is a general idea present that humanity could colonize the planet successfully and turn it into their new home. In the end, the future of life on Mars depends on our attempt to settle on the planet and on the individuals willing to fulfill such a goal.

**S14**

Life on Mars is not just a childish dream but a real project that has many people excited. People are doing the best they can to explore the possibility of life on Mars and once more resources get pushed towards this exploration of the planet, we will see incredible results.

**S15**

One can argue that life on Mars is just a part of our imagination and something that will never be achieved, a hypothetical idea far from realization. But there are others who wholeheartedly believe that life on Mars is possible and, some argue, there was life on this planet before.

**S16**

But until any further discoveries this planet, Earthlike in so many ways and alien in so many others, remains Terra Incognita. We can draw anything that takes our fancy in its red sands.