



# Our World

**Week Beginning: Monday 8 March 2021**



## This Week in Our World...

This week the focus of **'Our World'** is the successful landing of the robot, Perseverance, on the planet Mars.

The American space agency, NASA, successfully landed its Perseverance rover in a deep crater near the planet's equator called Jezero on 19 February. The engineers in NASA HQ were delighted when they were given confirmation that the rover had landed, with many jumping for joy at the news.

# The journey of the rover

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## EMIRATES MARS MISSION PHASES

### 1. LAUNCH

Begins after Probe is configured and enclosed in the launch vehicle and lasts until receiving the first signal

### 2. EARLY OPERATIONS (LEOP)

- Begins after launch and lasted (45 days)
- Constant contact with the Probe
- Characterizing and evaluation the performance of all probe components in space environment for the first time

### 3. CRUISE

- Begins after spacecraft commissioning is done in the EOP Phase
- Normal Operation with 2-3 contacts a week

### 4. MARS ORBIT INSERTION (MOI) (9.FEB 2021)

Begins after Cruise completion and lasts until Navigation Team confirms the probe is in a stable orbit

### INITIAL ORBIT

- 40-hour elliptical orbit
- 1,000 x 49,380 km

### SCIENCE ORBIT

- 20,000 x 43,000 km
- The probe will complete one orbit of the planet every 55 hours

### 5. TRANSITION TO SCIENCE

- Begins after MOI phase and last until the probe is in the science orbit.
- During the phase after the spacecraft commissioning is done, different maneuvers will be conducted to achieve the final orbit

### 6. SCIENCE

- Where the science data is collected
- lasts for 1 Martian year (687 Earth Days) with the possibility to extend it for one more year

# Mars Landing



## The story so far...

It is the first time a science mission has gone to Mars with such an advanced set of equipment, and it is the first time a robot has been sent to such a promising location in terms of finding past life.

NASA were very nervous before the touchdown because landing on Mars is very difficult.

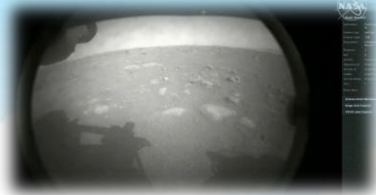
# Mars Landing



## Hopes for Perseverance

The name Perseverance was chosen by Alexander Mather, a 13-year-old student from Virginia in the US, who took part in Nasa's competition to name the robot.

The six-wheeled robot landed after a 470 million-km (292 million-mile) journey from Earth.



## What will it do?

Perseverance will take lots of pictures to help the scientists work out the terrain a bit more. It will spend the next two years drilling into rocks, looking for evidence of past life.

Jezero is thought to have been home to a giant lake billions of years ago and Scientists believe that there is the possibility life might also have existed.



# Articles of the Week

## Articles 2 & 28

**These articles relate to International Women's Day on March 8, which celebrates the achievements of women and girls.**

This year the theme is #ChoosetoChallenge.

We can all choose to challenge unfairness and call out gender bias and inequality.

We can all choose to seek out and celebrate women's achievements.

Collectively, we can all help create an inclusive world.



# Articles of the Week

## Articles 2 & 28

**Equal rights and opportunities for all girls and boys help all children fulfil their potential.**

### **Article 2 (non-discrimination)**

The Convention applies to every child without discrimination, whatever their ethnicity, gender, religion, language, abilities or any other status, whatever they think or say, whatever their family background.





# Articles of the Week

## Articles 2 & 28

### **Article 28 (right to education)**

Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child. Discipline in schools must respect children's dignity and their rights. Richer countries must help poorer countries achieve this.

Can you think of a girl or woman who is a good role model for others? Discuss as a class.



terrain

## Terrain

**Noun** – a stretch of land, especially with regard to its physical features.





Watch...



**Clip 1 (YouTube) - Landing**

<https://www.youtube.com/watch?v=4czjS9h4Fpg>

**Clip (CNN News) – since landing**

<https://edition.cnn.com/videos/tech/2021/03/05/nasa-mars-perseverance-rover-update-vpx.nasa/video/playlists/business-spacex/>