

This is not a word-for-word transcript

Neil

Hello. This is 6 Minute English from BBC Learning English. I'm Neil.

Sam

And I'm Sam.

Neil

In this programme, we'll be discussing our closest neighbour in the solar system – the planet Mars.

Sam

Often called the 'Red Planet', Mars has been in the news a lot recently with three separate missions being sent to explore the planet's surface in 2021.

Neil

Our fascination with the Red Planet has given birth to some interesting art over the years. This includes music, such as David Bowie's 1973 hit, *Life on Mars?*, and countless films, from 1938's, *Mars Attacks!*, to the 2015 blockbuster, *The Martian*.

Sam

But human interest in Mars goes back much earlier. Ancient civilisations, like the Maya of central America observed the planet's colour and recorded its movements, just like modern **astronomers** – scientists who study the universe and the stars, planets and suns within it.

Neil

Yet despite this, many questions remain unanswered. What caused the marks and scars on the planet's surface?

Sam

And the biggest question of all: is there life on Mars?

Neil

But before we go on, I have another question which needs answering, Sam. The ancient Romans were also interested in Mars. They even considered the planet to be a god – but god of what? Was Mars the Roman god of:

- a) Love?
- b) Fire? or,
- c) War?

Sam

Well, Mars is the 'Red Planet', so I guess the answer is b) the Roman God of Fire.

Neil

OK, Sam. We'll find out the answer at the end of the programme.

Sam

Whatever the Romans thought, civilisations throughout history have described looking into the night sky and seeing a bright, red light. But where does Mars' characteristic colour come from?

Neil

Someone who can answer that is Dr Michael Meyer. As lead scientist on NASA's Mars Exploration Programme, he spent years observing and recording the Red Planet.

Sam

Listen to Dr Meyer in conversation with BBC World Service programme, The Forum. Try to hear the explanation he gives for Mars's unusual colour.

Michael Meyer

One of the **distinctive** things about Mars is that it's red so you can see it and identify it. It looks red because of **rust** – iron oxide on the surface, which is red and, interestingly that look can change. And we saw that in 2018 when there was a global dust storm – Mars, instead of looking red looked a little orange, and that changing of colour might have made the civilisations watching Mars maybe uneasy to see something **immutable** in our night sky changing colours.

Neil

Dr Meyer calls Mars's red colour **distinctive** - easy to recognise because it's different from everything else. But did you hear why it's red in the first place, Sam?

Sam

Yes - it's red because of **rust** - a reddish chemical substance called iron oxide that occurs when metals react with water and air.

Neil

The colour of this rust can change slightly, from red to brown to orange, and Dr Meyer thinks these changing colours may have worried ancient astronomers who believed Mars was **immutable**, or never changing.

Sam

Unlike ancient civilisations, modern astronomers have sent satellites to land on Mars and explore its surface. And although no human has set foot on the Red Planet so far, we know a lot about conditions there.

Neil

So, in the words of David Bowie: is there life on Mars?

Sam

Well, that all depends on finding water. Water is life, and as Dr Meyer told BBC World Service's, The Forum, with water anything is possible.

Michael Meyer

And from all that we have learned from astrobiology, life is amazingly **adaptable**, but it still needs water. So that's why water is the key. So, finding liquid water on Mars, whether or not it's now or whether or not it's in the past, tells you that you potentially have a **habitable** environment, some place that could support life and perhaps even Martian life.

Neil

Dr Meyer says that life is amazingly **adaptable** – able to change in order to survive in new situations.

Sam

Finding liquid water could make the Red Planet **habitable** - good enough to live on. And with billionaire businessmen like Elon Musk planning manned missions to space, who knows how long it could be before we see a human on Mars?

Neil

And who knows what they'd find there! Tiny worms? Little green men? Or maybe a Roman god...?

Sam

Ah yes, in your quiz question you asked what Mars was the Roman god of. I guessed b) the Roman God of Fire.

Neil

Which was the wrong answer, I'm afraid. In fact, the Romans considered Mars their God of War, and sacrificed wild animals to him such as wolves, bears and, strangely, woodpeckers!

Sam

OK, Neil let's recap the vocabulary from this programme on the Red Planet, Mars, starting with **astronomer** – someone who studies the stars, planets and moons in our universe.

Neil

If something is **distinctive**, it's easily recognisable because it's different from everything else.

Sam

Rust, or iron oxide, is a red coloured chemical that occurs when metals react with water and air.

Neil

Immutable means never changing.

Sam

Something which is **adaptable** can easily change to deal with new circumstances.

Neil

And finally, **habitable** means good enough to live in.

Sam

That's all we have time for.

Neil

Bye for now!

Sam

Goodbye!

VOCABULARY

astronomer

scientist who studies the universe and the stars, planets, moons and suns existing within it

distinctive

easy to recognise because it's different from everything else

rust

reddish chemical substance called iron oxide that occurs when metals react with water and air

immutable

never changing

adaptable

able to change in order to deal with new situations

habitable

good enough to live in