

- Neil:** Hello and welcome to 6 Minute English from BBC Learning English, I'm Neil and with me today is Chris.
- Chris:** Hello there.
- Neil:** Now Chris, are you fan of driving?
- Chris:** Erm not really. I do have a driving licence but I don't actually drive that often.
- Neil:** OK then, so how do you think you would you like to try driving on Mars?
- Chris:** On Mars? Wow, yes, I suppose that would be even more challenging than the London rush hour.
- Neil:** Well, our story today is about driving on Mars, though the vehicle which has been sent up there is **remotely controlled**. It means there isn't a person driving it. It's controlled using a machine back on Earth.
- Chris:** Wow, it sounds just like the best Christmas present I ever got as a child!
- Neil:** Well, you're going to like this programme then today! But before we get into the details, though, let's have our quiz question. It's Mars-related, of course. I want to know how long a Mars year is. So, how long does it take Mars to go around, or **orbit**, the Sun? Is it:
- a) 152 days
 - b) 687 days
 - c) 2024 days
- Chris:** That's quite a tricky one. I will say b) 687 days.
- Neil:** OK, we will find out if you are right at the end of the programme. Now, some more information about this vehicle on Mars.
- Chris:** Yes, this isn't the first **rover** – or driverless car - to drive on the surface of the red planet.
- Neil:** No, there have been plenty of others but this is by far the most sophisticated. It's called the Curiosity rover and was made by NASA, the American Space Agency.

Chris: It took eight months to get to Mars and it's about the size of a family car. While it's up there, Curiosity will spend about two years exploring.

Neil: After that, there's a plan to send up a new robot called InSight. Listen to this first part of a report from the BBC's correspondent Jonathan Amos. What does he say the robot will be doing?

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InSight will put seismometers on the surface of the Red Planet and listen for 'Marsquakes'. From the pattern of signals it picks up, the spacecraft should be able to work out where the different rock boundaries lie inside the planet

Neil: Some interesting vocabulary there, Chris.

Chris: Yes, the robot will put some **seismometers** on the surface of Mars. A seismometer is a machine which measures sudden movements under the surface of a planet.

Neil: These seismometers will listen for what they're calling 'Marsquakes'.

Chris: When the earth shakes violently, it's called an **earthquake**. Because this is Mars, they are calling them 'Marsquakes'.

Neil: They also hope to find out more about Mars's **core** – that's the centre of the planet.

Chris: Listen out for a word which describes metal or rock which is so hot, it is liquid. Here's the second part of the BBC report.

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It should also be able to establish whether Mars has a molten core. It is Earth's swirling iron core that gives it the magnetic field which protects our atmosphere and oceans from being eroded by the Sun. Mars doesn't have that and this probably goes a long way to explaining why the cold, desiccated world appears to have no life on it today.

Neil: Very interesting stuff there. They want to find out if the core of Mars is **molten**. That's the word which describes rock or metal which is so hot it's liquid.

Chris: The Earth's core is made from iron. This spinning iron ball gives us the magnetic field which protects our atmosphere. They think that Mars doesn't have that and so its atmosphere is very thin. Therefore, it's not protected from the Sun and that's also why there is probably no life on Mars.

Neil: No life on Mars!? Oh, come on Chris, don't disappoint me.

- Chris:** Well, according to scientists, it's very unlikely. But they do hope the explorations will give them some clues about whether there ever was life on the red planet.
- Neil:** It's a shame. It would be so fascinating to discover there was life on Mars. Just think how amazing it would be to discover little green men alive on Mars!
- Chris:** Er, yeah, you sound a little bit **obsessed** with this idea of life on Mars, Neil. But you're not the only one, according to some critics of NASA.
- Neil:** Let's hear the final part of this BBC report from Jonathan Amos. What do they say NASA should be doing?

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Nasa says the selection of InSight was made before its latest rover, Curiosity, landed a fortnight ago, and so recent events had no influence on the decision. But there are those within the planetary science community who believe the agency is becoming Mars-obsessed, and they would like to see a more diverse list of exploration targets.

- Chris:** Critics of NASA say they should be looking at a more **diverse** list of exploration targets. Basically, this means they should be looking at a variety of places in space rather than concentrating on Mars.
- Neil:** Well, I'd be quite happy for them to keep concentrating on Mars, actually!
- Chris:** But you don't work for NASA.
- Neil:** That is very true. Now, we're coming to the end of the programme, so there's just time to answer the quiz question. I wanted to know how long a Mars year is. So how long does it take Mars to go around, or orbit, the Sun? Is it:
- a) 152 days
 - b) 687 days
 - c) 2024 days
- Chris:** And I said b) 687 days.
- Neil:** And you were absolutely right. I think you should be the one working for NASA, Chris.
- Chris:** Thank you!
- Neil:** That's all from us, but do join us again for more 6 Minute English from bbclearningenglish.com. Goodbye for now!
- Chris:** Bye!

Vocabulary and definitions

remotely controlled	operated by a device not connected to the machine
orbit	the circular path a planet makes around another planet
rover	a car-like vehicle with no driver
seismometers	machines to measure movement under the surface of planets
earthquake	a sudden and violent movement in the ground
core	centre
molten	liquid rock or metal
obsessed	not able to stop thinking about something
diverse	different and varied

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