

Scientists find water on Mars - 6 September, 2018

Are we alone here on Earth or is there life on other planets? People have tried to answer this question for many years but now, we may be a little bit closer to finding that answer.

The European Space Agency's Mars Orbiter first reached Mars in 2003. Since then, it has sent pictures and other data back to Earth. Using a radar instrument called 'Marsis', scientists have found an underground lake near the south pole of the Red Planet.

Just as the North Pole and the South Pole here on Earth are covered in thick ice, the poles on Mars are also covered in ice. But now, we know that there is an enormous lake about 1.5km below that ice. The lake is around 20 kilometres wide. Scientists are not sure how deep the lake is but believe that it must be at least one metre deep.

The water in the lake is probably very cold – between minus 30 and minus 60 degrees Celsius but it is not ice. It is not frozen because it contains a lot of salt and because there is so much ice above it.

Are there live bacteria in this underground lake? Scientists are not sure. They will only know the answer to this question when they can test the water. This will not happen for many years. Then, we will know for the first time that we are not alone.

1. What question have we been trying to answer for many years?
2. What happened in 2003?
3. What has the Orbiter been able to do?
4. What is the name of the radar instrument?
5. What has this instrument been able to do?
6. What is similar about the poles on Mars with the North and South Pole here?
7. What is below the ice on Mars?
8. How big is it?
9. Do Scientists know the depth of it?
10. What is the temperature of the lake likely to be?
11. Why isn't it frozen?
12. Are there live bacteria in the lake?