

Teacher: So you've got a few minutes to discuss with your partner.

Student 1: So, as far as I know, the main similarity between Mars and Earth is that they can both support human life.

Student 2: Yeah, but do we know that's actually true? I mean, **Mars is much colder** than Earth, isn't it? It says here it's about minus 55 degrees most of the time, whereas on Earth only places like Antarctica get that cold.

Student 1: True. Well then, I suppose you could say both planets are a similar distance from the Sun?

Student 2: No way! **Mars is much further away!** It says here it's about 228 million kilometres, while Earth is about 150 million.

Student 1: Yes, but in space that's not that far. Jupiter is, like, almost 780 million kilometres. That's why we use **astronomical** units when we talk about distances in space. Earth is 1 astronomical unit from the Sun and **Mars is 1.3**. The difference doesn't sound so big when you look at it that way.

Student 2: I see what you mean. Jupiter is 5.2 astronomical units so I guess you're right. What other similarities are there between the two planets?

Student 1: Let's see ... **not the colour**, obviously!

Student 2: Yeah! Earth is called the blue planet and Mars is called the red planet for pretty obvious reasons!

Student 1: Their sizes are pretty different. **Mars is about half the size of Earth.**

Student 2: What about this? It looks like the days on both planets are almost the **same** length. Earth's day is 24 hours but **Mars's is about half an hour longer.**

Student 1: You're right. OK, any other things they both share?

Student 2: I suppose you could say they have water in common.

Student 1: Could you? How?

Student 2: Well, Earth is 70 per cent water and **Mars probably had huge oceans in the past.** It's just that most of the water there now is probably **frozen.**

Student 1: Ah, I see. I don't think we can say the air is the same, though. **Most of Earth's air is nitrogen and oxygen**, but Mars ...?

Student 2: Mars doesn't really have air, not compared with Earth. It's got about one per cent as much air as Earth.

Student 1: Right, and it's mostly carbon dioxide.

Student 2: **Gravity** is another difference. I didn't know this, but Mars has higher gravity than the Moon. But it's much less than on Earth, of course.

Student 1: Oh, yes. It says Mars has about 38 per cent of Earth's gravity.

Teacher: OK, let's see what you've found ...