



Life on Mars

Lead-in

- 1 Your teacher will show you a short text. Look at it for one minute and write down key phrases. Work in pairs to reconstruct the text.
- 2 Discuss the questions below with your partner.
 - a What do you know about Mars?
 - b Have you heard of the Mars One project? Does the project sound realistic to you?
 - c What kind of person would be motivated to apply? Would you?
 - d What kind of criteria do you think they use to select candidates?
 - e How would you feel if a family member applied?
 - f What kind of problems would you foresee for an ordinary citizen?
 - g If you were allowed only a handful of personal items, what would you take?
 - h Do you think they will colonise Mars in your lifetime?

Input

- 1 You are going to listen to a short talk on colonising Mars. First discuss these questions with a partner.
 - a Which of the following issues would present the greatest problem? Why?
 - take-off and landing
 - food and water
 - housing and government
 - funding
 - radiation
 - power
 - reproduction
 - oxygen
 - b Can you imagine a solution?
- 2  **84.1** Listen to the talk and compare with your ideas.
- 3 Here are some of the solutions that were talked about to address the problems above.
 - a Which problems are they related to?
 - b Can you briefly explain each one?

inflatable domes 'space nuts' recycling equipment big rockets electrolysis
strict hierarchy inflatable heat shields minerals and additives nuclear batteries
- 4  **84.1** Listen again and check.
- 5 Do you think any of the problems are insuperable?

Language focus

1 Complete the extracts from the audio below with one of the phrases from the box.

*a thorny issue goes without a hitch in a tight spot having teething problems
stumbling block go pear-shaped bitten off more than we can chew unmitigated disaster*

- 1 Leading scientists claim that space is the only hope for our long-term survival from extinction – from nuclear war or fatal disease or other
- 2 Just getting there could be tricky – a nine-month journey which could
- 3 Another potential is the expense involved.
- 4 Right assuming the flight, then once landed, the crew will need oxygen, water, food and power if they are to survive in the long term.
- 5 They are with the technology involved.
- 6 Anyway, less of is power.
- 7 For example, if someone gets hold of the oxygen supply, it would leave you
- 8 All in all, we might have

2 ▶84.2 Listen and check your answers.

3 Think of a situation that recently presented you, or someone you know, with problems. Tell your partner about it.

4 Complete the expressions from the text with a suitable phrase below.

*what would be needed democracy changing the planet
radiation at least 2,000 bringing up future Martian babies
cake billions of dollars landing a space colony turning into a tyranny*

- 1 a piece of
- 2 levels of
- 3 chances of
- 4 the problem of
- 5 tens of
- 6 a fraction of
- 7 the dangers of
- 8 some kind of
- 9 a process of
- 10 a population of

5 Put in of wherever it has been removed from this text.

In terms distance, Mars is the fourth planet from the sun. It is rocky and cold with polar caps frozen water. It is named after the Roman god war because it is a red planet, the colour blood. The planet Mars has a crust rock. The ground is red as a result carbon dioxide and tiny amount oxygen. It does not have any liquid water on the surface but signs run-off on the surface Mars were probably caused by water. The average thickness the planet's crust is about 50km.

6 Discuss the questions with a partner.

- 1 Look at these sentences from the text.
- 2 What is the form of each sentence?
- 3 What is its function?

It is estimated that a population of at least 2,000 would be needed.
It is hoped that billionaire 'space nuts' may foot the bill.
It is thought to be tens of billions of dollars.

7 Complete the following sentence with your own ideas on the topic of space.

- 1 It is believed that
- 2 It is known that
- 3 It is claimed that
- 4 It is proven that
- 5 It is reported that

Task

1 You are going to take part in a selection panel to decide on suitable candidates for the mission to Mars. Read the information below.

Mars One is planning to colonise Mars within the decade. They are currently shortlisting candidates with the 'right stuff' to go to Mars. The chosen astronauts will probably be living in cramped conditions with three other people. They need to be team players and will need to cultivate their own food, maintain their essential equipment and conduct experiments. They will be filmed round the clock for a reality style show which will be partly funding the project. It is important that they have the right skills for the job and psychological stamina to cope with leaving Earth and family forever.

- 2** Look at the candidate profiles your teacher gives you and with your partner rank the candidates in order of their suitability to take part in the mission. Be prepared to explain why you have ordered them in this way.
- 3** Join another pair and discuss your order. Come to an agreement on the final order.
- 4** Compare your decision with the rest of the class.

Review

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