

## Vegetable gardens tested for Mars

10th October, 2016



Scientists are currently trying to get humans to Mars. Researchers from the U.S. space agency NASA are currently trying to find out what kind of plants could grow in the red soil on Mars. They

hope that astronauts will be able to start growing their own food on the Red Planet. The journey to Mars could take up to two-and-a-half years. The astronauts will need to take a lot of food with them just to last for the journey. They will never be able to return to Earth, which means they will need to grow their own fruit, vegetables and other plants from seeds. NASA said there could be a problem because Mars doesn't have soil that is good for growing things. It just has red dust.

Humans may be on their way to Mars in the next 15 years. NASA has been testing special "Martian gardens" to see what kind of things might grow on Mars. They have used a special soil made up of crushed volcanic rock. It contains no nutrients or organic material, so it is similar to the soil on Mars. The scientists managed to grow lettuce in it. They said the lettuce tasted normal, but it had weaker roots and took longer to grow. They will now try growing other vegetables. A NASA spokesman said: "Discoveries made in these Earth-based 'Martian gardens' will pave the way for future studies and technology development in terms of reliable, efficient food production a long way from [Earth]."

Sources: [csmonitor.com](http://csmonitor.com) / [techtimes.com](http://techtimes.com) / [natureworldnews.com](http://natureworldnews.com)

## Writing

Money should not be spent on health, not on researching gardens on Mars. Discuss.

## Chat

Talk about these words from the article.

humans / Mars / agency / astronauts / journey / return / fruit / vegetables / soil / Martian / gardens / volcanic / rock / nutrients / organic material / discoveries / Earth

## True / False

- NASA is looking at ways to get things to grow on Mars. T / F
- The article says Mars is also called the Black Planet. T / F
- It could take two-and-a-half years to get to Mars. T / F
- Astronauts will need to grow things on Mars from seeds. T / F
- Astronauts will not get to Mars until at least 2050. T / F
- Scientists used crushed salt rock because it is like the soil on Mars. T / F
- Scientists grew lettuce in volcanic dust and it tasted like normal lettuce. T / F
- Scientists want to pave a large part of Mars. T / F

## Synonym Match

(The words in **bold** are from the news article.)

- |                        |               |
|------------------------|---------------|
| 1. <b>trying</b>       | a. has        |
| 2. <b>find out</b>     | b. trip       |
| 3. <b>journey</b>      | c. earth      |
| 4. <b>last</b>         | d. prepare    |
| 5. <b>soil</b>         | e. discover   |
| 6. <b>next</b>         | f. stuff      |
| 7. <b>contains</b>     | g. upcoming   |
| 8. <b>material</b>     | h. attempting |
| 9. <b>pave the way</b> | i. safe       |
| 10. <b>reliable</b>    | j. keep going |

## Discussion – Student A

- Should money be spent on health instead of space research?
- How will people live on Mars?
- What is your experience of gardening?
- What will we be doing on Mars in 100 years from now?
- What three things would you take to Mars?
- What are the dangers of vegetables grown on Mars?
- How will you feel if humans get to Mars?
- What questions would you like to ask the astronauts?

# BreakingNewsEnglish - The Mini Lesson

## Phrase Match

- |   |                            |
|---|----------------------------|
| 1. Scientists are trying to get               | a. plants from seeds       |
| 2. what kind of plants could grow in          | b. way for future studies  |
| 3. The journey to Mars could take up          | c. volcanic rock           |
| 4. grow their own fruit, vegetables and other | d. for growing things      |
| 5. Mars doesn't have soil that is good        | e. humans to Mars          |
| 6. a special soil made up of crushed          | f. roots                   |
| 7. The scientists managed to grow             | g. production              |
| 8. it had weaker                              | h. the red soil on Mars    |
| 9. pave the                                   | i. lettuce in it           |
| 10. reliable, efficient food                  | j. to two-and-a-half years |

## Discussion – Student B

- Is there life on Mars?
- What do you think about what you read?
- What do you think it would be like to live on Mars?
- What do you think of growing things on Mars?
- What do you think of gardening?
- What kind of people are astronauts?
- What would it be like to travel to Mars for 2½ years?
- How would it feel to never return to Earth?

## Spelling

- the U.S. space cegyna NASA
- rlrutcny trying to find out
- nosutarast will be able to start
- The ruyjnoe to Mars
- never be able to rrntue to Earth
- fruit, vgtslebaee and other plants
- testing ilescpa "Martian gardens"
- crushed cclvnoia rock
- It contains no nutrients or oancigr material
- scientists gmaaned to grow lettuce
- the lettuce tasted maonlr
- gohytneoloc development

### Answers – Synonym Match

|      |      |      |      |       |
|------|------|------|------|-------|
| 1. h | 2. e | 3. b | 4. j | 5. c  |
| 6. g | 7. a | 8. f | 9. d | 10. i |

## Role Play

### Role A – Holidays in space

You think holidays in space is the best thing to happen in the future. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): living to be 200, downloading skills to the brain or recording dreams.

### Role B – Living to be 200

You think living to be 200 is the best thing to happen in the future. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): holidays in space, downloading skills to the brain or recording dreams.

### Role C – Downloading skills to brain

You think downloading skills to the brain is the best thing to happen in the future. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): living to be 200, holidays in space or recording dreams.

### Role D – Recording dreams

You think recording dreams is the best thing to happen in the future. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): living to be 200, downloading skills to the brain or holidays in space.

## Speaking – Science fiction

Rank these with your partner. Put the things you want to happen most the top. Change partners often and share your rankings.

- |                     |                            |
|---------------------|----------------------------|
| • holidays in space | • download skills to brain |
| • jet-backpacks     | • typing by thought        |
| • cities on Mars    | • recording dreams         |
| • live to be 200    | • healthy forever pills    |

### Answers – True False

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a | T | b | F | c | T | d | T | e | F | f | F | g | T | h | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Answers to Phrase Match and Spelling are in the text.