

## China grows plants on the moon

17th January, 2019



For the first time ever, plants from Earth are growing on the moon. The China National Space Administration showed photos of cotton seeds sprouting into life. The administration said the cotton plants

were among several plants that were "growing well". Other plants that are now growing on the moon are potatoes, rock cress and rapeseed. The plants are part of a project on China's space mission to the far side of the moon. The project is called a "moon surface micro-ecological circle". Project leader Liu Hanlong says the cotton seeds were the first to sprout. He said the plants were chosen because they were small, strong and could grow in the difficult conditions on the moon's surface.

Professor Hanlong said the project's aim was to understand more about how plants grow outside of Earth. The long-term aim is to develop plants that can grow on the moon or on planets like Mars. The professor said: "We have given consideration to future survival in space. Learning about these plants growing in a low-gravity environment would allow us to lay the foundation for our future establishment of a space base." The project also includes yeast and fruit flies. The professor hopes the six organisms in the project will make up a mini-ecosystem. The plants will produce oxygen and food for the fruit flies, and the yeast could manage the flies' waste and the dead plants to provide another food source.

Sources: [scmp.com](http://scmp.com) / [newscientist.com](http://newscientist.com) / [bbc.com](http://bbc.com)

## Writing

It is essential to try and grow food in space. Discuss.

## Chat

Talk about these words from the article.

the first time / Earth / cotton / seeds / plants / potatoes / project / mission / surface / aim / long-term / planets / survival / gravity / foundation / yeast / fruit flies / food

## True / False

- a) Plants have never grown on the moon before this mission. T / F
- b) Chinese scientists showed photos of moss growing on the moon. T / F
- c) The plants are growing on the far side of the moon. T / F
- d) Cotton seeds were the first plants to sprout. T / F
- e) Scientists said their long-term aim is to grow plants on Mars. T / F
- f) Scientists said there are no chances of survival in space. T / F
- g) There are sixty different organisms in the Chinese eco-system project. T / F
- h) The article said dead plants will be used to provide oxygen for fruit flies. T / F

## Synonym Match

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

- |                          |                 |
|--------------------------|-----------------|
| 1. <b>ever</b>           | a. goal         |
| 2. <b>sprouting</b>      | b. trip         |
| 3. <b>administration</b> | c. selected     |
| 4. <b>mission</b>        | d. setting up   |
| 5. <b>chosen</b>         | e. springing up |
| 6. <b>aim</b>            | f. thought      |
| 7. <b>consideration</b>  | g. in history   |
| 8. <b>allow</b>          | h. give         |
| 9. <b>establishment</b>  | i. let          |
| 10. <b>provide</b>       | j. management   |

## Discussion – Student A

- a) What do you think of plants growing on the moon?
- b) Would you eat plants grown on the moon?
- c) What do you know about the cotton plant?
- d) What problems might plants have growing on the moon?
- e) What are your favorite plants?
- f) Why might moon plants be dangerous?
- g) What do you think of starting farms on the moon?
- h) Would you like to live on the moon?

## Phrase Match

1. For the first
2. among several plants that
3. the far side
4. grow in the difficult
5. on the moon's
6. understand more
7. growing in a low-
8. lay the foundation
9. The plants will produce oxygen
10. provide another food

- a. conditions
- b. and food
- c. surface
- d. about how plants grow
- e. of the moon
- f. for our future
- g. time ever
- h. source
- i. gravity environment
- j. were "growing well"

## Discussion – Student B

- a) What do you think about what you read?
- b) Why are scientists doing this project?
- c) Will we have to live in space in the future?
- d) What do you think of space tourism?
- e) What do you know about yeast?
- f) What do you know about eco-systems?
- g) Would you eat a new food source developed on the moon?
- h) What questions would you like to ask the project leader?

## Spelling

1. photos of cotton edsse sprouting
2. among eavsrel plants
3. part of a ceprtoj
4. space sinsimo to the far side of the moon
5. grow in the difficult incntodio
6. on the moon's cfsaure
7. leevdpo plants that can grow
8. future vrshivula in space
9. a low-gayirtv environment
10. lay the toofdnunia for our future
11. The plants will odcurep oxygen
12. provide another food sruoce

### Answers – Synonym Match

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

## Role Play

### Role A – Cotton

You think cotton is the world's most useful plant. Tell the others three reasons why. Tell them what is wrong with their plants. Also, tell the others which is the least useful of these (and why): potatoes, bamboo or roses.

### Role B – Potatoes

You think potatoes are the world's most useful plant. Tell the others three reasons why. Tell them what is wrong with their plants. Also, tell the others which is the least useful of these (and why): cotton, bamboo or roses.

### Role C – Bamboo

You think bamboo is the world's most useful plant. Tell the others three reasons why. Tell them what is wrong with their plants. Also, tell the others which is the least useful of these (and why): potatoes, cotton or roses.

### Role D – Roses

You think roses is the world's most useful plant. Tell the others three reasons why. Tell them what is wrong with their plants. Also, tell the others which is the least useful of these (and why): potatoes, bamboo or cotton.

## Speaking – Plants

Rank these with your partner. Put the most useful plants at the top. Change partners often and share your rankings.

- cotton
- potatoes
- cactus
- banana
- wheat
- bamboo
- garlic
- roses

### Answers – True False

a	T	b	F	c	T	d	T	e	T	f	F	g	F	h	F
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Answers to Phrase Match and Spelling are in the text.