# Potatoes grown in Moon-like soil

LEVEL A2/B1


Photo: Diyar Bakir Wahab / Unsplash

## I. WARM-UP

1. Would you try food grown in space? Why or why not?
2. Have you ever grown a plant at home or at school?
3. What is your favourite way to eat potatoes?

## II. KEY VOCABULARY

- **astronaut**
  A person trained to travel and work in space.
- **soil**
  The ground material that plants grow in.
- **compost**
  Rotted plant and food waste used to improve soil.
- **nutrient**
  A substance that helps living things grow and stay healthy.
- **simulate**
  To copy something so it is like the real thing.
- **mission**
  A planned trip with a goal, often in space.
- **variety**
  A type within a group of plants or things.
- **root**
  The part of a plant that grows under the ground.

## III. READING

Scientists in the US say potatoes can grow in soil that simulates the Moon. A team at Oregon State University planted spuds in Moon-like soil and in normal Earth soil. The Moon-like soil has few nutrients and can include metals that are harmful to plants, so the team mixed in compost.

Pots with 30% compost grew just as well as Earth soil and kept good nutritional quality. Plants without compost were small and had weak roots. Aymeric Goyer from Oregon State University said: "We found that potatoes can complete their entire life cycle in simulated lunar soil" when extra compost is added.

Experts say this is a step towards longer space missions. Astronauts could take a small bag of compost, then make more from leftover food and plant waste. The team now wants to test different potato varieties to learn which ones grow best in Moon-like soil.

*Reading text adapted from reporting by* **BBC News:** *"Could astronauts grow potatoes on the Moon?". Original article linked at* theenglishwire.com.

## IV. COMPREHENSION QUESTIONS

1. Who carried out the potato research?
2. What kind of soil did the team test for growing potatoes?
3. What helped the potatoes grow well in the Moon-like soil?
4. What happened to plants grown without compost?
5. How could astronauts reduce food sent from Earth on long missions?

## V. DISCUSSION

1. Should astronauts grow food on the Moon? Why or why not?
2. What foods would you pack for a long space mission?
3. Could your school grow vegetables with compost? What would help?
4. Which would be hardest to grow on the Moon: fruit, veg, or herbs?



## VI. GRAMMAR FOCUS

### Superlatives

Use superlatives to say one thing is top in a group: the + adjective-est (the biggest) or the most/least + adjective. Add in/of to show the group: in our class, of all plots.

*"With 30% compost, plants were* **the strongest** *in our test."*

*"In our class test, potatoes were* **the easiest** *crop to grow."*

## VII. GRAMMAR EXERCISE

**Circle the correct option in each sentence.**

1. In our class test, 30% compost was (better / the best). _____
2. For quick meals, potatoes are (the simplest / simpler) to cook. _____
3. That tuber was (large / the largest) in the box. _____
4. Of all plots, this one had (the fewest / few) weeds. _____
5. Our poster was (clearer / the clearest) in class. _____

# Teacher's Notes

**TEACHERS ONLY**

These notes are designed to help you get the most out of this lesson. Please do not share this page with students.



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## I. LESSON GUIDE

- Timing: 6–8 minutes warm-up, 8–10 minutes vocabulary, 10–12 minutes reading and comprehension, 8–10 minutes grammar, 8–10 minutes discussion.
- Pre-teach astronaut, soil, compost and nutrient with quick pictures or gestures. Do a fast class vote: Which crop is easiest to grow—potatoes, tomatoes or lettuce?
- Reading: set a skim task (What did they test? Where?). Then scan for the key number (30%) and the name Aymeric Goyer. Pair-check answers, then whole-class feedback with a quick quiz game (true/false).
- Differentiation: stronger students list pros and cons of growing food in space; others underline useful phrases from the text to use in discussion. Fast finishers find all plant verbs and make a mini glossary.

## II. DISCUSSION FACILITATION TIPS

1. Start with a quick show of hands, then ask two students from each side to share reasons.
2. Have students choose three items, compare in pairs, and justify choices with one reason each.
3. Run a 2-minute planning chat in pairs; ask for one practical idea per pair (tools, space, water).
4. Do a quick ranking line: fruit, veg, herbs. Ask students to defend their top and bottom choices.

## III. EXTENSION ACTIVITIES

**Writing:** In pairs, write a 70-word message from an astronaut explaining how they grew potatoes.

**Experiment:** Plan a 10-minute classroom test: choose one plant and decide how to try compost vs no compost.

## IV. ANSWER KEY OVERVIEW

**Comprehension questions:** short factual answers from the text.

**Grammar exercise:** Superlatives

**Discussion:** open-ended. Accept any reasonable ideas supported by examples and reasoning.

# Answer Key

**TEACHERS ONLY**

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## IV. COMPREHENSION QUESTIONS

1. Who carried out the potato research?
   **A team at Oregon State University in the US.**
2. What kind of soil did the team test for growing potatoes?
   **Soil that simulates the Moon, plus normal Earth soil for comparison.**
3. What helped the potatoes grow well in the Moon-like soil?
   **Adding compost with nutrients (30% worked as well as Earth soil).**
4. What happened to plants grown without compost?
   **They were small and had weak roots.**
5. How could astronauts reduce food sent from Earth on long missions?
   **They could take a little compost and make more from food and plant waste.**

## V. DISCUSSION

**Open answers.** Accept any reasonable ideas supported by examples and reasoning.

## VII. GRAMMAR EXERCISE

Circle the correct option in each sentence.

1. In our class test, 30% compost was (better / the best). **the best**
2. For quick meals, potatoes are (the simplest / simpler) to cook. **the simplest**
3. That tuber was (large / the largest) in the box. **the largest**
4. Of all plots, this one had (the fewest / few) weeds. **the fewest**
5. Our poster was (clearer / the clearest) in class. **the clearest**

## VI. GRAMMAR FOCUS

**Key point:** Use superlatives to say one thing is top in a group: the + adjective-est (the biggest) or the most/least + adjective. Add in/of to show the group: in our class, of all plots. (Examples constructed.)

*"With 30% compost, plants were* **the strongest** *in our test."*

*"In our class test, potatoes were* **the easiest** *crop to grow."*