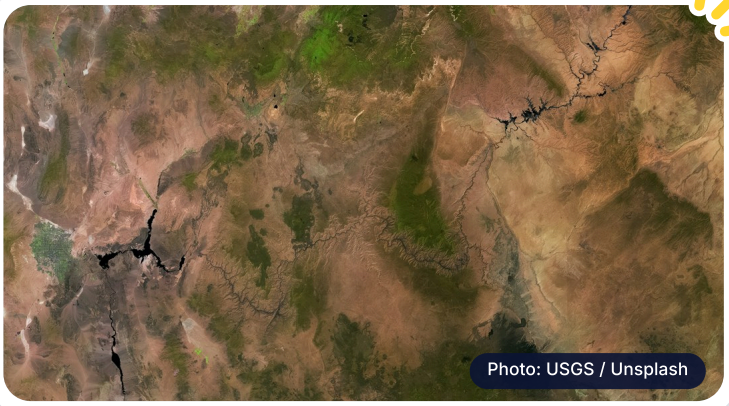
Satellites map possible temple at Buto

LEVEL B1


Photo: USGS / Unsplash

I. WARM-UP

1. Have you ever explored places on Google Earth? What did you check out?
2. Would you rather visit a museum or a science centre? Why?
3. Which ancient civilisation do you want to learn more about? Why?

II. KEY VOCABULARY

- **satellite**
  A machine in space that sends signals or takes images of Earth.
- **excavate**
  To dig in the ground to find old objects or buildings.
- **structure**
  A building or something built from parts, like walls or columns.
- **temple**
  A building used for religious activities or worship.
- **artefact**
  An old object made or used by people in the past.
- **layer**
  One level of material on top of or under another.
- **sand**
  Very small grains of rock found on beaches and in soil.
- **confirm**
  To show that something is true with proof or evidence.

III. READING

Egyptian scientists used the European Space Agency's Sentinel-1 satellite to scan the ancient city of Buto, near Tell el-Fara'in. Excavating deeper there was hard, so the team looked from space with microwaves and mapped what lay below the surface. The images showed a large structure under the ground.

First came a layer of pottery and stone, then a huge area that researchers think is about 2,600 years old. Because religious artefacts were also found nearby, the site may include a temple. Under the building they detected a clean layer of sand.

This suggests builders used sand to make the ground steadier in a wet area affected by the Nile's shifting water. After studying the images, the team did limited digging and found pottery fragments to help confirm their map. Their study was published in the journal Acta Geophysica, and the scientists plan to return to explore more.

Reading text adapted from reporting by **BBC News:** *"Ancient Egyptian structure discovered from space". Original article linked at* theenglishwire....

IV. COMPREHENSION QUESTIONS

1. Where in Egypt did the team focus their study?
2. Which tool helped the scientists see beneath the ground?
3. How old do researchers think the structure is?
4. What detail suggests the site may include a temple?
5. Why was the clean layer of sand important?

V. DISCUSSION

1. Would you like to explore history using satellites or drones? Why?
2. What ancient place would you most like to visit, and why?
3. Do you learn history better with videos, games or trips? Explain.
4. If your class mapped your town from space, what would you look for?



VI. GRAMMAR FOCUS

Third conditional

Use the third conditional to talk about an unreal past and a different result. Form: If + past perfect, result with would have + past participle.

"If the team had dug deeper, they **would have damaged** *the site."*

"If our class had known about Buto, we **would have studied** *it earlier."*

VII. GRAMMAR EXERCISE

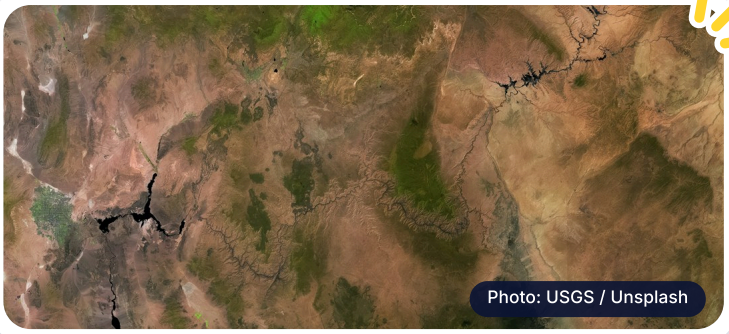
Complete each sentence with would have + past participle.

1. If the satellite had failed, they (map) ___ less.
2. If students had seen the images, they (ask) ___ more questions.
3. If the water had shifted faster, the ground (be) ___ unstable.
4. If researchers had skipped digging, they (not/find) ___ pottery.
5. If our club had visited the site, we (take) ___ photos.

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.


Photo: USGS / Unsplash

I. LESSON GUIDE

- Timing: 6–8 minutes warm-up, 8–10 minutes vocabulary, 10–12 minutes reading, 8–10 minutes comprehension, 8–10 minutes discussion. Grammar can share time with comprehension.
- Pre-teach or clarify names and terms in the text: Buto, Tell el-Fara'in, Nile, European Space Agency, Sentinel-1, artefact. Show Egypt on a map for context.
- Run the reading as a jigsaw: half read paragraphs 1–2, half read paragraph 3, then pair up and teach each other. This keeps teens active and lowers pressure.
- Start discussion with a quick class vote on Q1 (hands up for satellites vs drones), then pair-share before whole-class feedback to build confidence.

II. DISCUSSION FACILITATION TIPS

1. Ask for a show of hands, then put mixed pairs together so each side explains its choice with one example.
2. Give one minute to choose a place, then ask for one reason and one cool detail to share with a partner.
3. Have students rank the three options, then justify their top choice with a past success from school.
4. In small groups, set a 30-second brainstorm to list targets (parks, rivers, traffic), then choose one to explain.

III. EXTENSION ACTIVITIES

Writing: In pairs, write a 70-word Newsround-style post summarising the discovery at Buto.

Presentation: In groups of three, make a 1-minute slide explaining how Sentinel-1 maps the ground, with three images.

IV. ANSWER KEY OVERVIEW

Comprehension questions: short factual answers from the text.

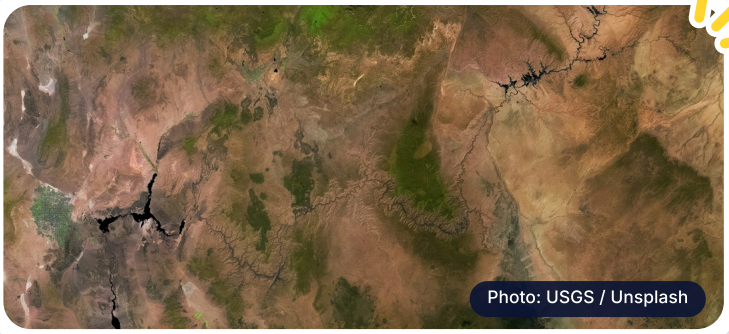
Grammar exercise: Third conditional

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

Answer Key

TEACHERS ONLY

These answers are for teachers only. Please do not share this page with students.


Photo: USGS / Unsplash

IV. COMPREHENSION QUESTIONS

1. Where in Egypt did the team focus their study?
   The ancient city of Buto, near Tell el-Fara'in.
2. Which tool helped the scientists see beneath the ground?
   The European Space Agency's Sentinel-1 satellite.
3. How old do researchers think the structure is?
   About 2,600 years old.
4. What detail suggests the site may include a temple?
   Religious artefacts were found nearby.
5. Why was the clean layer of sand important?
   It suggests builders used sand to make the wet ground steadier.

V. DISCUSSION

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

VII. GRAMMAR EXERCISE

Complete each sentence with would have + past participle.

1. If the satellite had failed, they ___ less. **would have mapped**
2. If students had seen the images, they ___ more questions. **would have asked**
3. If the water had shifted faster, the ground ___ unstable. **would have been**
4. If researchers had skipped digging, they ___ pottery. **wouldn't have found / would not have found**
5. If our club had visited the site, we ___ photos. **would have taken**

VI. GRAMMAR FOCUS

Key point: Use the third conditional to talk about an unreal past and a different result. Form: If + past perfect, result with would have + past participle. (Examples constructed.)

"If the team had dug deeper, they **would have damaged** *the site."*

"If our class had known about Buto, we **would have studied** *it earlier."*