

READING

Is there life beyond Earth?

LEVEL

Upper-Intermediate
(B2)

NUMBER

EN_B2_3053R

LANGUAGE

English



Learning outcomes

- I can read and understand the main points of a text about the likelihood of life beyond Earth.
- I can discuss the possibility of life existing on other planets.

Warm-up

1. **Your teacher will assign** each student one of these everyday objects privately in the chat.
2. **Write a description** of your object as though you had never seen it before – from the perspective of an alien!

1



2



3



4



5



3. **Share** the descriptions in the group chat, without naming the object.

4. **Guess** the objects being described.



Reading (1)

Read the text and **complete** the activity below.

Are there thinking beings somewhere in the universe? This is a question that countless generations have asked as they stared upward into the night sky. The ancient Greeks thought that the universe was inhabited by an infinite number of worlds and beings.

In the last decades, it has become possible to go beyond theorising and make a real attempt to explore the universe. Recent technological advances have allowed us to take tentative steps into the solar system. We can peer into the depths of space by sending satellites and hardware far beyond our own ability to follow.

1. What question has preoccupied humans throughout history?
2. Think of a **title** for this text excerpt and share your idea with the class. Decide which one is the most suitable.





Reading (2)

Read the text and complete the activity below.

When you think about it, it seems extremely unlikely that all of the necessary conditions for life only accidentally appeared on Earth's surface. For life to flourish and evolve, our planet has required a rather precise combination of conditions. Adequate air pressure, the presence of oxygen and water, and a proper distance from the sun to ensure the right temperature are only a few of the atmospheric requirements that our planet needs to cultivate life. If our existence on Earth is merely a coincidence, then it is a very lucky one.

1. What conditions are required for life to thrive, according to the text?
2. Think of a title for this text excerpt and share your idea with the class. Decide which one is the most suitable.



Dictionary work

1. **Read** the words below from the text.
2. **Write** a definition for 3 words, without using a dictionary (you can do this in breakout rooms).
3. **Look up** the meaning of your words in an online dictionary. Was your definition close?



countless

to theorise

tentative

to peer

to flourish

to cultivate

coincidence

hardware

advances



Discuss

What places on Earth have extreme conditions?

Have you ever visited one of these places? Would you like to?



Reading (3)

Read the text and **complete** the activity below.

It has previously been assumed that astrobiology* belonged purely to the realm of science fiction. Certain recent discoveries, however, have changed this opinion. Water has recently been found on Mars, fuelling speculation that it might be suitable for habitation. It is now believed that life possibly began on Mars billions of years ago, when the planet was much warmer and wetter. Since learning that water once flowed freely on the red planet, many researchers have been searching for simple bacterial life below the planet's crust.



1. Which recent discoveries have caused a change in opinion around astrobiology?
2. What are researchers currently searching for on Mars? Why?



Astrobiology is the field of science that studies the origins and future of life in the universe



to **fuel speculation**

Read the sentence below.

What do you think the highlighted phrase means? Discuss your ideas as a class:

*Water has recently been found on Mars, **fuelling speculation** that it might be suitable for habitation.*



Reading (4)

Read the text and **complete** the activity below.

Mars is not the only place scientists are interested in. Titan, Saturn's largest moon, has many environmental variables which could support life, while Jupiter's moons contain ice-covered oceans which could do the same. Scientists have developed techniques to intercept communications from alien civilisations, if they exist, and are actively on the lookout for signals or transmissions.

It is now known that life can endure extreme conditions. The only precondition is the availability of water. Bacteria have been found in the depths of the ocean that can endure kilometres underground and in environments of extreme heat or cold. The tenacity of bacteria increases the likelihood that life could take root in an environment beyond Earth.

1. Which other places in outer space are scientists interested in? Why?
2. Why are scientists looking for bacteria in the ocean?



Vocabulary match

Match the vocabulary items below to the correct definition.

- | | | | |
|---|---------------------|---|---|
| 1 | variable | a | something which needs to be in place for something else to happen |
| 2 | to intercept | b | determination to continue or keep going |
| 3 | transmission | c | to catch or block someone or something before it reaches its destination |
| 4 | tenacity | d | a situation or quantity that can be varied |
| 5 | precondition | e | to find a stable place from which to grow; to find favourable conditions for growth |
| 6 | to take root | f | a message or communication of some kind |





Fill in the gaps

Complete the sentences using the words in the red box.

- 1 He might have scored, but he was _____ by the defender.
- 2 They analysed the data according to the age of participants, but other important _____ were ignored in the study.
- 3 A temporary ceasefire is a _____ for the peace talks to begin.
- 4 Certain ideas have _____ in the public imagination, and it's hard to change people's minds.
- 5 It requires a lot of _____ to pursue a career in the music industry.

variable
to take root
to intercept
tenacity
precondition



Making contact with life beyond earth

What do you think might happen if humans made contact with aliens?

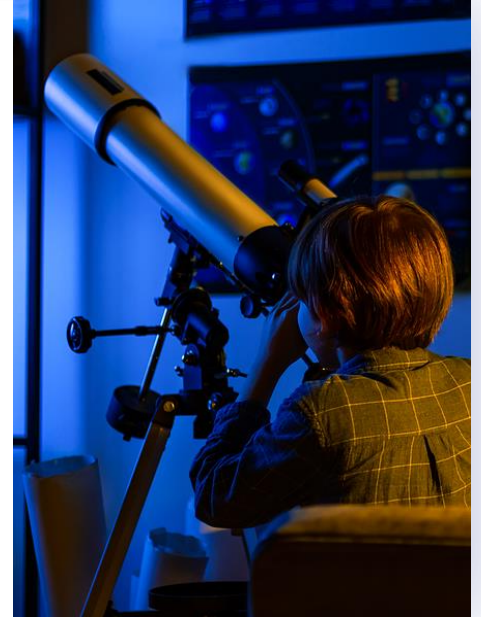
Do you think it would be a positive or negative encounter? Give a reason for your answer.



Reading (5)

Read the text and **complete** the activity below.

Recent calculations predict that more than a fifth of stars are likely to harbour habitable planets. The closest to us would likely be light years away. While this may be nothing in the cosmic scale of the universe, it's still beyond our capabilities to investigate. With the multitude of galaxies and inconceivable breadth of the cosmos, it is more than likely that other systems contain planets which contain the delicate balance of conditions to foster life. Whether that life is as developed as we are, or merely simple bacteria is unknown.



1. How many stars are likely to have planets where life could exist, according to the text?
2. Why is it likely that other systems besides our own have similar conditions to earth, according to the text?

Reading (6)

Read the text and **complete** the activity below.

Leading scientists and researchers speculate that evidence of life beyond Earth will likely be discovered in the coming decades. The view that the universe is home to many habitable environments is growing. This is likely to be one of those cases in which science fiction becomes science.

The discovery of life beyond ourselves would lead to many interesting questions about our own existence, and likely answer many of our deeper questions about the cosmos.



1. Rephrase this sentence in your own words: *Science fiction becomes science.*
2. What kind of questions about our own existence do you think the text is referring to in the second part?



Discuss the scenarios

Discuss the scenarios below with your classmates.
Which (if any) do you think is the most likely scenario?



We are the only advanced beings in the universe.

Advanced alien life will contact us.

Alien life is already watching us.



End of the lesson

Idiom

To come back down to Earth

Meaning: to return to routine, regular or boring things after having a fun experience

Example: The worst thing about the weekend is that you have to come back down to Earth every Monday.



Additional practice



Vocabulary review

Complete the sentences using the words from the lesson in the red box.

- 1 I _____ behind the stage curtain during the break, hoping to see one of the famous actors.
- 2 We took a few _____ steps onto the rope bridge, worried that it might break under us!
- 3 The roses are really _____ in that spot by the window – the conditions there are perfect.
- 4 At this school, we aim to _____ an atmosphere of supportive learning.
- 5 There are _____ ways of making this dish, but this recipe is the one I always use, and it goes down a treat at dinner parties.

to peer
to cultivate
countless
to flourish
tentative



UFO sightings

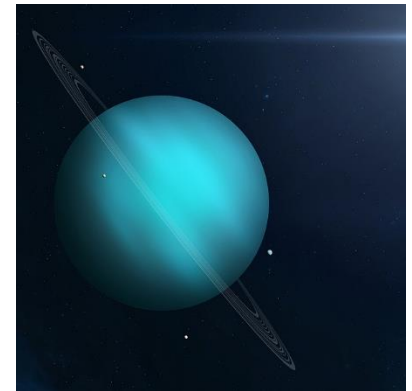
“

Residents of a remote village in Germany have reported the presence of a large UFO hovering above a nearby forest in recent weeks, fuelling speculation about a potential alien invasion!

Do you know what a UFO is?

Have you ever read news stories about alien sightings and/or UFOs?

What would you do if you saw a UFO in the sky near where you live?





Writing activity

Write a paragraph summarising your view on life beyond Earth. Some points you might like to consider include:

- Breakthroughs that may occur in this field in the future
- Risks involved in contact with life beyond Earth
- Positive outcomes of making contact with life beyond Earth





Answer key

P.11: 1. (d) 2. (c) 3. (f) 4. (b) 5. (a) 6. (e)

P.12: 1. intercepted 2. variables 3. precondition 4. taken root 5. tenacity

P. 20: 1. peered 2. tentative 3. flourishing 4. cultivate 5. countless



Summary

Vocabulary about life beyond Earth:

- *to fuel speculation; variable; tenacity; precondition; to take root*
- *to intercept; transmission*
- *Scientists are trying to **intercept transmissions** from other life forces.*
- *The discovery of water on Mars has **fuelled speculation** that life could survive there.*

Opinions about life beyond Earth:

- *We are the only advanced beings in the universe.*
- *Advanced alien life will contact us.*
- *Alien life is already watching us.*



Vocabulary

to fuel speculation

variable

to intercept

transmission

tenacity

precondition

to take root

