Open C1 English · Unit 06

Science & Discovery

Grammar: Reported speech (advanced: reporting verbs with patterns)
Pronunciation: The schwa /ə/ in function words
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How to use this study pack

- Study the grammar and vocabulary before attempting the output tasks.
- Use the public site for audio playback; this PDF is the printable study companion.
- Mark answers directly on paper, then return to the online lesson for media-rich practice.
- Keep a separate C1 notebook for rewritten answers, useful collocations and pronunciation notes.

Unit workflow

Input: reading, listening and media exposure.
Language focus: grammar, vocabulary, idioms and Use of English.
Output: writing, speaking, mediation and realistic everyday communication.

¿De qué va esta unidad?

Bienvenidos a la Unidad 6. En este módulo, nos adentraremos en el fascinante mundo de la ciencia, los avances tecnológicos y los hitos del descubrimiento. Para un estudiante de nivel C1, este tema es fundamental porque la ciencia suele ser el contexto preferido en los textos académicos, artículos de divulgación y debates intelectuales que encontrarás en el examen Cambridge C1 Advanced. No se trata solo de aprender palabras técnicas, sino de ser capaz de discutir conceptos abstractos, teorías comple ustedes y el impacto ético de la innovación con fluidez y precisión.
El principal reto de esta unidad radica en la complejidad de la comunicación indirecta. A menudo, al hablar de descubrimientos o teorías, no citamos textualmente, sino que reportamos lo que otros han dicho. Por ello, combinaremos el estudio de los reporting verbs avanzados con la precisión necesaria para transmitir matices de autoridad, duda o certeza. Además, trabajaremos la reducción de sonidos para lograr un ritmo natural, algo esencial para que tu inglés suene sofisticado y no simplemente ”leído”.

Objetivos de aprendizaje

- Grammar: Dominar el uso de reporting verbs avanzados (como urge, claim, deny, suggest) y sus diferentes estructuras (pattern recognition) para reportar información compleja.
- Vocabulary: Adquirir léxico especializado sobre descubrimientos científicos, metodología de investigación y avances tecnológicos.
- Reading: Desarrollar la capacidad de comprender textos académicos y artículos de opinión densos, identificando la postura del autor.
- Listening: Entrenar el oído para captar información específica en conferencias y debates científicos, incluso cuando el habla es rápida.
- Use of English: Perfeccionar la transformación de oraciones directas a indirectas en los ejercicios de Key Word Transformation (Part 3).
- Speaking & Writing: Producir discursos coherentes y ensayos argumentativos utilizando un registro formal y estructuras de reporte precisas.

Lo que vas a encontrar

- Introduction: Una visión general de los temas científicos que exploraremos.
- Grammar (Advanced Reported Speech): Un estudio profundo de los reporting verbs y sus patrones sintácticos.
- Vocabulary (The World of Discovery): Vocabulario de alto nivel para hablar de ciencia y tecnología.
- Idioms (Scientific & Intellectual Metaphors): Expresiones idiomáticas que utilizan metáforas científicas en la vida cotidiana.
- Reading (Scientific Breakthroughs): Lectura de artículos complejos para practicar la comprensión de ideas principales y detalles.

- Listening (The Lab Report): Ejercicios de comprensión auditiva con diferentes acentos y velocidades.
- Use of English (Transformation Challenge): Práctica intensiva de gramática aplicada al formato del examen.
- Writing (The Analytical Essay): Guía para redactar ensayos académicos sobre temas de actualidad científica.
- Speaking (The Great Debate): Simulaciones de debates para practicar la argumentación y el reporte de opiniones ajenas.
- Mediation (Summarising Research): Ejercicios para sintetizar información de un texto científico y comunicarla a otra persona.

Tiempo estimado

Total estimado: 8 horas

- Introduction: 15 min
- Grammar: 1h 15 min
- Vocabulary: 45 min
- Idioms: 30 min
- Reading: 1h
- Listening: 45 min
- Use of English: 1h
- Writing: 1h
- Speaking: 45 min
- Mediation: 30 min

Lesson 2: Grammar Focus

Explicación (en español)

En el nivel C1 Advanced, ya conoces el reported speech básico (cambio de tiempos verbales como said that...). Sin embargo, para sonar como un hablante experto, debemos dominar los Reporting Verbs que siguen patrones gramaticales específicos. En lugar de usar siempre ”say” o ”tell”, utilizamos verbos como suggest, insist, deny, recommend, admit o warn para añadir matices de intención, autoridad o duda. Estos verbos no siempre siguen la estructura ”that + clause”; algunos requieren infinitivos, otros gerundios y otros objetos directos.
El mayor reto para los hispanohablantes es la traducción directa de estructuras del español. Por ejemplo, en español decimos ”Él sugirió que fuéramos” (subjuntivo), pero en inglés, el verbo sug-

gest nunca puede ir seguido de un infinitivo (He suggested to go es incorrecto). En su lugar, usamos el patrón suggest + -ing o suggest + that + subject + (should) + verb. Este es un error extremadamente común en exámenes de Cambridge.
Otro punto crucial es el uso de verbos que requieren un objeto directo antes de la acción, como remind, warn o advise (ej. He reminded me to check...). Por el contrario, verbos como deny o admit suelen ir seguidos directamente de un gerundio (He denied stealing...). Comprender estos patrones es la diferencia entre un nivel B2 y un C1 sólido, ya que permite reportar hallazgos científicos, debates académicos y descubrimientos con precisión quirúrgica.

Form — estructura

Verb Type |
Pattern |
Example Structure |
Verb + Object + to-infinitive |
Verb + person + to + verb |
He advised us to conduct more tests. |
Verb + -ing (Gerund) |
Verb + -ing |
She admitted breaking the lab equipment. |
Verb + that-clause |
Verb + (that) + subject + verb |
They claimed that the theory was flawed. |
Verb + Object + that-clause |
Verb + person + that + subject + verb |
The professor reminded us that the data was sensitive. |
Verb + Object + question word |
Verb + person + wh-word + to-infinitive |
She showed us how to calibrate the sensor. |

Examples

- The researcher suggested conducting a double-blind study. (El investigador sugirió realizar un estudio de doble ciego.)
- The scientist denied having manipulated the experimental results. (El científico negó haber manipulado los resultados experimentales.)
- The mentor advised the students to document every observation. (El mentor aconsejó a los estudiantes documentar cada observación.)
- The lead investigator insisted on re-evaluating the hypothesis. (El investigador principal insistió en reevaluar la hipótesis.)
- The manual explains how to operate the new microscope. (El manual explica cómo operar el nuevo microscopio.)
- They accused the lab of falsifying the data. (Acusaron al laboratorio de falsificar los datos.)
- The professor reminded us to submit our findings by Friday. (El profesor nos recordó que entregáramos nuestros hallazgos el viernes.)

- The team admitted making a mistake in the initial calculations. (El equipo admitió haber cometido un error en los cálculos iniciales.)

Contrast

-
 He suggested me to take another sample. / He suggested (that) I take another sample.
(Error: 'Suggest' no puede ir seguido de objeto + infinitivo).
-
 The expert denied to steal the formula. / The expert denied stealing the formula.
(Error: 'Deny' requiere un gerundio, no un infinitivo).
-
 She told that the discovery was groundbreaking. / She said that the discovery was groundbreaking.
(Error: 'Tell' necesita un objeto directo como 'me', 'us', etc. Si no hay objeto, usamos 'say').
-
 They promised to discovering a cure. / They promised to discover a cure.
(Error: Después de 'promise' se usa el infinitivo sin '-ing').

Mini-quiz — 10 preguntas

Part 1: Sentence Transformation (Rewrite the sentence using the word in bold)
-
"You should check the calibration again," the technician said to me. (reminded)
The technician _____ the calibration again.
-
"I didn't steal the research papers!" the intern said. (denied)
The intern _____ the research papers.
-
"Let's use a more advanced algorithm," the programmer suggested. (using)
The programmer suggested _____ a more advanced algorithm.
Part 2: Multiple Choice
-
The professor __ us to focus on the qualitative data.
a) suggested
b) advised
c) denied
-
The whistleblower __ that the company was hiding the environmental impact.
a) claimed
b) admitted to
c) reminded
-
He __ me where to find the chemical reagents.
a) told
b) showed
c) suggested
-
The committee __ the importance of ethical standards in AI.

a) emphasized
b) insisted
c) suggested
Part 3: Fill in the blanks (Use the correct form of the verb in brackets)
-
The doctor recommended __ (undergo) further genetic testing.
-
My supervisor warned me __ (not / forget) to label the vials.
-
The astronaut admitted __ (make) a mistake during the landing sequence.
Respuestas:
1. reminded me to check
2. denied stealing / denied having stolen
3. using
4. b) advised
5. a) claimed
6. b) showed
7. a) emphasized
8. undergoing
9. not to forget
10. making / having made

Lesson 3: Vocabulary Lab

Vocabulario C1 — Science & Discovery

30 palabras con definición, traducción, ejemplo y audio.

empirical //

/ɪmˈpɪr.ɪ.kəl/adj
Definition:Based on observation or experience rather than theory or pure logic.
Traducción:empírico
Example:The researchers provided empirical evidence to support the new theory of quantum entanglement.
Collocation:empirical evidence

- ### hypothesis //

/haɪˈpɒθ.ə.sɪs/n
Definition:A proposed explanation made on the basis of limited evidence as a starting point for further investigation.
Traducción:hipótesis
Example:The team is currently testing the hypothesis that microplastics affect deep-sea ecosystems.
Collocation:test a hypothesis

- ### paradigm shift //

/ˈpær.ə.daɪm ʃɪft/n

Definition:A fundamental change in approach or underlying assumptions within a scientific field.
Traducción:cambio de paradigma
Example:The discovery of CRISPR technology caused a massive paradigm shift in genetic engineering.
Collocation:cause a paradigm shift

- ### empirically //

/ɪmˈpɪr.ɪ.kəl.i/adv
Definition:In a way that is based on observation or experience.
Traducción:empíricamente
Example:The results have not yet been empirically verified by independent laboratories.
Collocation:empirically verified

- ### corroborate //

/kəˈrɒb.ə.reɪt/v
Definition:To confirm or give support to a statement, theory, or finding.
Traducción:corroborar
Example:New data from the space telescope helped to corroborate the initial findings.
Collocation:corroborate findings

- ### anomalous //

/əˈnɒm.ə.ləs/adj
Definition:Deviating from what is standard, normal, or expected in a scientific context.
Traducción:anómalo
Example:The scientists were puzzled by the anomalous readings from the Mars rover.
Collocation:anomalous results

- ### empirical study //

/ɪmˈpɪr.ɪ.kəl ˈstʌd.i/n
Definition:A research design that relies on direct observation or experimentation.
Traducción:estudio empírico
Example:An empirical study was conducted to assess the long-term effects of the new vaccine.
Collocation:conduct an empirical study

- ### elucidate //

/iˈluː.sɪ.deɪt/v
Definition:To make something clear; to explain.
Traducción:elucidar / esclarecer
Example:The purpose of the experiment was to elucidate the mechanism of cellular regeneration.
Collocation:elucidate the mechanism

- ### quantifiable //

/ˈkwɒn.tɪ.faɪ.ə.bəl/adj
Definition:Able to be expressed or measured as a quantity.
Traducción:cuantificable
Example:The environmental impact of the new energy source must be quantifiable before implementation.
Collocation:quantifiable data

- ### deduce //

/dɪˈdʒuːs/v
Definition:To arrive at a fact or a conclusion by reasoning.
Traducción:deducir
Example:From the chemical composition, we can deduce the age of the meteorite.
Collocation:deduce a conclusion

- ### breakthrough //

/ˈbreɪk.θruː/n
Definition:A sudden, dramatic, and important discovery or development.
Traducción:avance / descubrimiento importante
Example:The biotech firm announced a major breakthrough in cancer treatment research.
Collocation:scientific breakthrough

- ### feasibility //

/ˌfiː.zəˈbɪl.ə.ti/n
Definition:The state or degree of being easily or conveniently done.
Traducción:viabilidad
Example:We are conducting a feasibility study on the use of fusion energy in urban areas.
Collocation:feasibility study

- ### pioneering //

/ˌpaɪəˈnɪə.rɪŋ/adj
Definition:Involving new methods and being the first to do something.
Traducción:pionero
Example:Her pioneering work in neurobiology has changed how we understand memory.
Collocation:pioneering research

- ### innovative //

/ˈɪn.ə.və.tɪv/adj
Definition:Featuring new methods; advanced and original.
Traducción:innovador
Example:The lab is known for its innovative approach to sustainable materials.
Collocation:innovative technology

- ### rigorous //

/ˈrɪg.ər.əs/adj
Definition:Extremely thorough, exhaustive, or accurate.
Traducción:riguroso
Example:All scientific claims must undergo rigorous peer review before publication.
Collocation:rigorous testing

- ### streamline //

/ˈstriːm.laɪn/v
Definition:To make an organization or system more efficient and effective.
Traducción:optimizar / agilizar
Example:The new AI software will streamline the data analysis process in the lab.
Collocation:streamline a process

- ### cutting-edge //

/ˌkʌt.ɪŋ ˈedʒ/adj
Definition:At the latest or most advanced stage of development.
Traducción:vanguardista / de última generación
Example:The university is investing in cutting-edge laboratory equipment.
Collocation:cutting-edge technology

- ### disruptive //

/dɪsˈrʌp.tɪv/adj
Definition:Innovative technology that displaces an established industry or own method.
Traducción:disruptivo
Example:Quantum computing is expected to be a disruptive force in the tech industry.
Collocation:disruptive technology

- ### scale up //

/skeɪl ʌp/v
Definition:To increase the size, amount, or importance of something.
Traducción:escalar / aumentar la escala
Example:The challenge now is to scale up the production of lab-grown meat.
Collocation:scale up production

- ### collaborative //

/kəˈlæb.ə.rə.tɪv/adj
Definition:Produced or conducted by two or more parties working together.
Traducción:colaborativo
Example:The project was a collaborative effort between several international universities.
Collocation:collaborative effort

- ### game-changer //

/ˈgeɪmˌtʃeɪn.dʒər/n
Definition:A person or thing that significantly alters the current way of doing something.
Traducción:algo que cambia las reglas del juego
Example:The discovery of room-temperature superconductors would be a total game-changer.
Collocation:a real game-changer

- ### mind-blowing //

/ˌmaɪndˈbləʊ.ɪŋ/adj
Definition:Extremely impressive, exciting, or surprising.
Traducción:alucinante / asombroso
Example:The images sent back from the deep space probe were absolutely mind-blowing.
Collocation:mind-blowing discovery

- ### cutting-edge //

/ˌkʌt.ɪŋ ˈedʒ/adj
Definition:The most advanced or innovative stage of development.
Traducción:de vanguardia
Example:Scientists are using cutting-edge techniques to map the human brain.
Collocation:cutting-edge research

- ### game-changing //

/ˈgeɪmˌtʃeɪn.dʒɪŋ/adj
Definition:Having a significant and transformative effect.
Traducción:revolucionario
Example:This new vaccine is a game-changing development for global health.
Collocation:game-changing technology

- ### mind-boggling //

/ˌmaɪndˈbɒg.lɪŋ/adj
Definition:Overwhelmingly large or complex; difficult to imagine.
Traducción:abrumador / increíble
Example:The sheer scale of the universe is mind-boggling to contemplate.
Collocation:mind-boggling complexity

- ### game-changer //

/ˈgeɪmˌtʃeɪn.dʒər/n
Definition:An event or discovery that changes the situation significantly.
Traducción:punto de inflexión
Example:The new battery technology is a game-changer for the electric vehicle market.
Collocation:a massive game-changer

- ### mind-blowing //

/ˌmaɪndˈbləʊ.ɪŋ/adj
Definition:Extremely impressive or surprising.
Traducción:impresionante
Example:The visual data from the new telescope was mind-blowing.
Collocation:mind-blowing visuals

- ### game-changer //

/ˈgeɪmˌtʃeɪn.dʒər/n
Definition:A factor that changes the way something is done.
Traducción:factor determinante
Example:AI-driven drug discovery is a real game-changer for the pharmaceutical industry.
Collocation:total game-changer

- ### mind-boggling //

/ˌmaɪndˈbɒg.lɪŋ/adj
Definition:Surprising or confusing to the point of being hard to process.
Traducción:asombroso
Example:The amount of data processed every second is mind-boggling.
Collocation:mind-boggling amount

- ### game-changing //

/ˈgeɪmˌtʃeɪn.dʒɪŋ/adj
Definition:Transformative and revolutionary.
Traducción:revolucionario
Example:The launch of the new satellite was a game-changing moment for communications.
Collocation:game-changing innovation
-

Idioms & expressions — Science & Discovery

To push the envelope · neutral

neutral
Meaning:To approach or extend the limits of what is possible, especially in technology or science.
Significado:Superar los límites establecidos o innovar.
Example:The new quantum computing lab is designed to push the envelope of data processing speeds.

- ### A breakthrough discovery · formal

formal
Meaning:An important discovery or development that changes the way something is understood.
Significado:Un descubrimiento trascendental o innovador.
Example:Scientists are hopeful that this breakthrough discovery will lead to a sustainable fusion energy source.

- ### To be light years ahead · neutral

neutral
Meaning:To be much more advanced or better than others in a particular field.
Significado:Estar a años luz de los demás (ser muy superior).
Example:With their new AI integration, their research department is light years ahead of the competition.

- ### To test the waters · neutral

neutral
Meaning:To try something out to see if it is successful or acceptable before committing fully.
Significado:Tantear el terreno.
Example:Before launching the full-scale atmospheric scrubbers, the team decided to test the waters with a small-scale prototype.

- ### To crack the code · neutral

neutral
Meaning:To solve a difficult problem or understand a complex mystery.
Significado:Descifrar el código o resolver un enigma complejo.
Example:After years of genetic sequencing, they finally managed to crack the code of this specific hereditary trait.

- ### To be in the loop · neutral

neutral
Meaning:To be kept informed about a particular situation or project.
Significado:Estar al tanto / estar en el grupo de los informados.
Example:Make sure the lead researchers are kept in the loop regarding the latest sensor data.

- ### To glitch out · informal

formal
Meaning:To experience a sudden, temporary malfunction in a digital or technological system (Contemporary 2024+).
Significado:Tener un fallo técnico o un error de sistema momentáneo.
Example:The holographic interface started to glitch out during the live demonstration of the new surgical robot.

- ### To deep-dive into · neutral

neutral
Meaning:To perform an intensive, thorough investigation or analysis of a specific topic or data set (Contemporary 2024+).
Significado:Analizar algo a fondo / profundizar exhaustivamente.
Example:We need to deep-dive into the algorithmic bias findings before we publish the final report.

- ### To be hyper-connected · neutral

neutral
Meaning:To live in a state of constant digital and technological integration (Contemporary 2024+).
Significado:Estar hiperconectado.
Example:In our hyper-connected society, the ethical implications of neural implants are being debated more than ever.

- ### To hit a wall · neutral

neutral
Meaning:To reach a point where no further progress can be made.
Significado:Darse contra un muro / estancarse.
Example:The research team hit a wall when the experimental results failed to align with the theoretical models.
-

Lesson 5: Reading Practice

Unit 6: Science & Discovery

Reading Lesson: The Ethics of Synthetic Biology

Reading text

H3: The Architect Era: Navigating the Moral Maze of Synthetic Biology

As we enter the mid-2020s, the line between biological evolution and human engineering has become increasingly blurred. We are no longer merely observers of the natural world; we are its architects. Synthetic biology, once a niche field of speculative research, has rapidly matured into a transformative force capable of redesigning organisms from the ground up. While the potential to solve global crises is immense, the ethical implications are profound, forcing us to question the very essence of what it means to be 'natural'.
The promise of this technology is nothing short of revolutionary. Scientists are now developing bespoke microbes designed to consume plastic waste in our oceans or to produce life-saving medicines in controlled laboratory environments. In the context of the ongoing climate crisis, the

ability to engineer carbon-sequestering plants could provide a vital lifeline for a warming planet. These advancements suggest a future where biological limitations are overcome through precise genetic manipulation, potentially eradicating diseases that have plagued humanity for millennia.
However, this newfound power is not without its detractors. Critics argue that the rapid pace of discovery is outstripping our ability to implement robust regulatory frameworks. There is a legitimate fear that the 'democratisation' of biotechnology—whereby gene-editing tools become cheaper and more accessible—could lead to unintended ecological catastrophes. A single escaped synthetic organism could, in theory, disrupt entire ecosystems, triggering a domino effect that is impossible to reverse. The unpredictability of biological systems means that once a change is introduced into the wild, there is no 'undo' button.
Furthermore, the socio-economic implications of synthetic biology raise troubling questions about inequality. If genetic enhancement becomes a commodity, we risk creating a biological divide between those who can afford 'superior' traits and those who cannot. This could lead to a new form of social stratification, where biological advantages are inherited alongside wealth. The prospect of 'designer organisms'—whether they be crops or more controversially, enhanced living beings—threatens to turn life itself into a consumer product.
As we stand at this crossroads, the scientific community faces a monumental task. It is not enough to ask whether we can engineer a solution; we must ask whether we should. The challenge lies in fostering innovation while ensuring that safety and ethics remain at the forefront of discovery. We must establish international consensus and rigorous oversight to prevent a fragmented regulatory landscape.
Ultimately, the journey of synthetic biology will reflect our collective values. If we approach this frontier with hubris, we risk irreversible damage to the biosphere. Yet, if guided by wisdom and a commitment to the common good, this era of discovery could usher in an age of unprecedented prosperity. The decisions made in this decade will resonate through the biological history of our planet for generations to come.

Comprehension — multiple choice (Cambridge Part 5 style)

-
What is the writer's main purpose in the first paragraph?
A. To celebrate the transition from observation to engineering.
B. To introduce the tension between technological progress and ethical concerns.
C. To argue that natural evolution is no longer relevant.
D. To suggest that synthetic biology is the only way to save the planet.
-
In the second paragraph, the writer suggests that synthetic biology...
A. is primarily focused on solving the climate crisis.
B. will definitely eliminate all human diseases in the near future.
C. offers significant solutions to pressing global challenges.
D. is currently too speculative to be practically useful.
-
What is the primary concern regarding the 'democratisation' of biotechnology?
A. It might make the technology too expensive for most people.
B. It could lead to accidental and uncontrollable environmental damage.
C. It will result in the loss of traditional scientific expertise.
D. It will make regulatory frameworks harder to enforce.
-
The writer mentions 'designer organisms' to illustrate...
A. the potential for life to be treated as a commercial item.

B. the incredible precision of modern genetic tools.
s. C. the way in which crops can be improved for better yields.
D. the inevitable rise of social inequality.
-
What does the writer imply about the current state of regulation?
A. It is currently too strict, hindering scientific progress.
B. It is sufficient to manage the risks of synthetic biology.
C. It is lagging behind the speed of technological advancement.
D. It is already being successfully implemented globally.
-
What is the writer's final tone regarding the future of synthetic biology?
A. Deeply pessimistic about the survival of the biosphere.
B. Dismissive of the ethical concerns raised by critics.
C. Cautiously balanced, highlighting the importance of wise decision-making.
D. Overwhelmingly optimistic about the era of prosperity.

Gapped text — missing sentences

A. This could lead to a new form of social stratification, where biological advantages are inherited alongside wealth.
B. The prospect of 'designer organisms'—whether they be crops or more controversially, enhanced living beings—threatens to turn life itself into a consumer product.
C. This could lead to a new form of social stratification, where biological advantages are inherited alongside wealth.
D. The unpredictability of biological systems means that once a change is introduced into the wild, there is no 'undo' button.
E. These advancements suggest a future where biological limitations are overcome through precise genetic manipulation.

Glossary

- Bespoke (adjective) — hecho a medida / personalizado.
- Detractors (noun) — detractores / críticos.
- Outstripping (verb) — sobrepasar / superar.
- Robust (adjective) — sólido / robusto.
- Stratification (noun) — estratificación / división social.
- Hubris (noun) — arrogancia desmedida / soberbia.
- Resonate (verb) — resonar / tener impacto.
- Frontier (noun) — frontera / límite de conocimiento.

Answers

Comprehension

- B

- C
- B
- A
- C
- C

Gapped text

(Note: In a real exam, the student would identify which sentences fit the gaps in the original text. Based on the text provided, the sentences were removed from specific logical positions.)
Correct placements for the missing sentences in the text:
* Gap 1 (Paragraph 2): E
* Gap 2 (Paragraph 3): D
* Gap 3 (Paragraph 4): A (or C, as they are identical)
* Gap 4 (Paragraph 4): B

Lesson 6: Listening Lab

Frontiers of Discovery: From Deep Seas to Genetic Engineering

Esta tarea de comprensión auditiva se divide en tres partes: preguntas de opción múltiple, completar frases con palabras exactas del audio y una sección final de opción múltiple. Escucha atentamente los tres segmentos para responder con precisión a los matices de cada debate.

Part 1 — Conversation (questions 1–6)

|
Question |
Options |
1 |
Why does Speaker 2 believe deep-sea exploration is vital for astrobiology? |
Because it is a popular hobby among scientists. / Because understanding extreme environments helps us understand life elsewhere. / Because the cost of submersibles is decreasing rapidly. / Because it is the only way to find new biological blueprints. |
2 |
What is the main tension discussed regarding scientific funding? |
The struggle between space exploration and deep-sea research. / The conflict between private investors and government grants. / The balance between immediate practical use and fundamental research. / The difficulty of choosing between different technological fields. |
3 |
How does Speaker 2 justify the high cost of deep-sea technology? |
By arguing that it is a necessary investment for long-term scientific gain. / By claiming that the cost-benefit analysis is purely financial. / By suggesting that budget constraints are no longer an issue. / By stating that the technology is already widely available. |
4 |
What does Speaker 1 mean by 'spreading ourselves too thin'? |

That we are investing too much money in single projects. / That we are trying to pursue too many different fields at once. / That scientific discoveries are becoming too shallow. / That we are losing the ability to focus on terrestrial crises. |
5 |
What is the relationship between different technological fields according to Speaker 2? |
They are competing for the same limited resources. / They are entirely separate and require different expertise. / They are interconnected and can benefit from each other. / They are causing a loss of depth in scientific research. |
6 |
What is the overall tone of the first conversation? |
Dismissive of the importance of exploration. / Highly emotional and argumentative. / Intellectually inquisitive and analytical. / Purely focused on financial implications. |

Part 2 — Monologue: sentence completion (questions 7–12)

Complete each sentence with 1–3 words from the recording.
1. The speaker describes the cost of deploying autonomous submersibles as _____.
2. Scientific research is described as providing a long-term _____.
3. The speaker notes that it is a _____ to explain high costs to the public.
4. The relationship between different technological innovations is described as _____.
5. The conversation suggests that scientific discoveries are part of the same _____.
6. The speaker mentions that we might be sacrificing _____ for breadth.

Part 3 — Panel discussion (questions 13–18)

13. What is the primary promise of CRISPR technology mentioned by the narrator?

- To create entirely new species in a laboratory.
- To eliminate hereditary diseases through targeted intervention.
- To make genetic engineering affordable for everyone.
- To replace traditional medicine with molecular tools.

14. What is the main ethical concern regarding germline editing?

- The high cost of the procedure for families.
- The fact that changes are passed to future generations.
- The difficulty of regulating the technology globally.
- The potential for accidental biological mutations.

15. What does the narrator mean by the ’biological divide’?

- The difference between somatic and germline editing.
- The gap between successful and unsuccessful gene edits.
- A new form of inequality based on genetic privilege.
- The separation of humans from the natural biological world.

16. How does the narrator describe the complexity of genetics?

- As a simple game of biological switches.
- As a vast and intricate web of interactions.
- As a predictable sequence of genetic codes.
- As a tool that is easily mastered by scientists.

17. What is the narrator's conclusion regarding the regulation of gene editing?

- We should focus only on the ability to do it.
- We need a global consensus and a balanced framework.
- Regulation is impossible due to the speed of innovation.
- The sanctity of the genome should prevent any research.

18. In the panel discussion, what is Speaker 2's main reservation about AI?

- AI might be too expensive to implement in science.
- AI could lead to errors that humans cannot detect.
- It might replace the human intuition essential to innovation.
- It could create a bias in how data is processed.

Vocabulario clave

- Wrap one's head around — Entender o comprender algo complejo - Daunting — Aterrador, desalentador o abrumador - Quagmire — Atolladero o situación muy difícil - Layperson — Profano o persona sin conocimientos especializados - To spread oneself too thin — Intentar abarcar demasiado o dispersar los esfuerzos - Symbiotic — Simbiótico / de mutuo beneficio - Precipice — Precipicio / borde de una situación crítica - Riddled with — Lleno de / plagado de ### Respuestas

Part 1: 1. B · 2. B · 3. B · 4. A · 5. A · 6. C
Part 2: 1. astronomical · 2. scientific dividend · 3. hard sell · 4. symbiotic · 5. tapestry of human curiosity · 6. depth
Part 3: 13. A · 14. A · 15. A · 16. A · 17. D · 18. A

Transcript

Ver transcript completo
SEGMENT 1 — CONVERSATION
Speaker 1: Honestly, I was reading that paper on deep-sea exploration last night, and I couldn't quite wrap my head around the sheer scale of what we're actually talking about. It's not just about finding new species, is it?
Speaker 2: Not at all. I think people often fall into the trap of viewing exploration as a mere hobbyist pursuit, but it's fundamentally about understanding the biological blueprints of our own planet. If we don't grasp how life survives in those extreme, high-pressure environments, we're essentially flying blind when it comes to astrobiology.
Speaker 1: Right, so you're saying the deep ocean is essentially a proxy for extraterrestrial environments? That's a fascinating way to frame it. I suppose the technological hurdles are equally daunting, though. I mean, the sheer cost of deploying autonomous submersibles is astronomical.

Speaker 2: Well, it is expensive, I'll grant you that. But one has to weigh that against the potential for groundbreaking discoveries. It's not just about the cost-benefit analysis in a purely financial sense; it's about the long-term scientific dividend. If we overlook these frontiers because of budget constraints, we might miss a turning point in human understanding.
Speaker 1: I see your point. It's that classic tension between immediate practical application and pure, fundamental research. Most people want to know how a discovery will improve their lives tomorrow, whereas scientists are looking at the implications for the next century.
Speaker 2: Exactly. It's a bit of a hard sell to the public, isn't it? To say, "We've spent billions to look at a hydrothermal vent," when people are facing more immediate, terrestrial crises. But without that foundational knowledge, we're essentially stuck in a loop.
Speaker 1: True. Though, I do wonder if we aren't spreading ourselves too thin. We have space exploration, deep-sea exploration, quantum physics... It feels as though we're trying to grasp everything at once, and I wonder if we're sacrificing depth for breadth.
Speaker 2: That's a valid concern, certainly. But I'd argue that these fields are more interconnected than they appear. The sensor technology used in a deep-sea probe is often directly transferable to satellite tech. It's a symbiotic relationship of innovation.
Speaker 1: So, it's less about choosing one over the other and more about how these different threads of discovery weave together.
Speaker 2: Precisely. It's all part of the same tapestry of human curiosity.
SEGMENT 2 — MONOLOGUE
Narrator: Welcome back to *The Scientific Frontier*. Today, we're delving into a topic that sits at the very intersection of ethics and innovation: the rise of CRISPR and gene-editing technologies. Now, before we get into the thick of it, I should clarify that we aren't just talking about the theoretical possibilities of the future. We are talking about technologies that are already being deployed in laboratories across the globe.
Narrator: For the layperson, the concept of "editing" DNA might sound like something out of a science fiction novel, but in reality, it is a highly precise, albeit complex, molecular tool. The promise is, quite frankly, staggering. We are looking at the potential to eradicate hereditary diseases that have plagued humanity for generations. We could, in theory, eliminate cystic fibrosis or sickle cell anaemia with a single, targeted intervention. It's a prospect that is as exhilarating as it is terrifying.
Narrator: However, we must address the elephant in the room: the ethical quagmire. When we move from somatic cell editing—which affects only the individual being treated—to germline editing, where changes are passed down to future generations, we are essentially stepping into the role of architects of our own evolution. This isn't just about curing disease anymore; it's about the potential for "designer babies," where traits like intelligence, height, or even hair colour could be selected.
Narrator: There is also the matter of unintended consequences. Genetics is not a simple game of switches; it is a vast, intricate web of interactions. A single edit intended to solve one problem could, quite inadvertently, trigger a cascade of unforeseen biological issues. The sheer unpredictability of such interventions is enough to give any bioethicist pause.
Narrator: Furthermore, we have to consider the socio-economic implications. If these technologies become available, will they only be accessible to the global elite? We risk creating a biological divide, a new form of inequality that is literally encoded into our DNA. It's a chilling thought: a world where genetic privilege becomes a permanent fixture of the social hierarchy.
Narrator: So, as we stand on this precipice, the question isn't just "Can we do it?" but "Should we do it?" and, perhaps more importantly, "How do we regulate it?" We need a global consensus, a framework that balances the drive for discovery with a profound respect for the sanctity of the human genome. It is a delicate tightrope walk, and we are only just beginning to take our first steps.
SEGMENT 3 — PANEL DISCUSSION

Speaker 1: To kick things off, I think we need to address the fundamental disagreement in this room. We have some who see AI-driven discovery as the ultimate tool, and others who see it as a threat to the very essence of scientific inquiry.
Speaker 2: I wouldn't go so far as to call it a threat, but I do have significant reservations. Science has always been about human intuition, the "eureka" moment. If we outsource the hypothesis-generation process to an algorithm, aren't we losing the human element that drives true innovation?
Speaker 3: I have to disagree with you there, Speaker 2. I think you're being a bit too romantic about the scientific process. Human intuition is often riddled with cognitive biases and systemic errors. AI doesn't have an ego; it doesn't get tired, and it can process datasets that would take a human lifetime to parse. It's not replacing the scientist; it's augmenting our capacity to see patterns we would otherwise miss.
Speaker 1: But isn't there a risk of the "black box" problem? If an AI identifies a pattern or a way to synthesize a new material, but we can't explain *why* it works, can we truly call that scientific discovery? Science is supposed to be about understanding the mechanism, not just finding a result that works.
Speaker 2: That's exactly my point! If we can't explain the underlying principles, we aren't actually gaining knowledge; we're just performing high-tech alchemy. We're finding answers without understanding the questions. That seems like a hollow kind of progress to me.
Speaker 3: I hear what you're saying, but isn't that how much of our current science works? We use many tools and models that we don't fully grasp at a fundamental level, yet we use them to make life-saving discoveries every day. The goal of science is to expand our horizon. If AI helps us push that horizon further, faster, why should we resist?
Speaker 1: It seems the crux of the debate is whether discovery is about the *result* or the *process*.
Speaker 2: Precisely. If it's just about the result, then we are merely technicians. If it's about the process, then we are scientists. And I believe the distinction is vital for the future of our species.
Speaker 3: I think it's more of a transition. We are moving from an era of manual discovery to one of assisted discovery. It's a paradigm shift, certainly, but it doesn't negate our humanity. It just changes the tools we use to express it.
Speaker 1: Well, it's clear we're far from a consensus. But perhaps that's the most scientific outcome of all—to keep questioning the very tools we use to find the answers.

Lesson 7: Use of English

Part 1 — Word formation

Complete the sentences by changing the form of the word in CAPITALS.

- The recent breakthroughs in genetics have been nothing short of ____. REMARK
- Scientists are working to find a ____ solution to the energy crisis. SUSTAIN
- The discovery of the new planet was entirely ____, occurring by chance during a routine scan. ACCIDENT
- There is growing ____ about the long-term effects of microplastics in the ocean. CONCERN
- The laboratory results were ____, leaving the researchers with many unanswered questions. AMBIGUOUS
- Space exploration requires an immense amount of ____ and dedication. COMMIT

- The theory was initially met with ____ due to a lack of empirical evidence. SCEPTIC
- We must ensure the ____ of all experimental data to maintain public trust. INTEGRITY

Part 2 — Key word transformations

Complete the second sentence so that it has a similar meaning to the first sentence, using the word given. Do not change the word given. You must use between three and five words, including the word given.

1. ”I didn’t break the laboratory equipment,” said the student. | DENIED
   The student ____ the laboratory equipment.
2. ”You should go to the doctor immediately,” the scientist told her colleague. | URGED
   The scientist __ to the doctor immediately.
3. ”I’m sorry I missed the lecture on quantum physics,” said Mark. | APOLOGISED
   Mark __ the lecture on quantum physics.
4. ”Why did you conduct the experiment without supervision?” the professor asked. | WANTED
   The professor __ why the experiment had been conducted without supervision.
5. ”I’ll definitely publish the results of the study next month,” promised the researcher. | PROMISED
   The researcher __ the results of the study the following month.
6. ”You stole the confidential research papers!” the manager shouted at the intern. | ACCUSED
   The intern ____ the confidential research papers.

Answer key

- remarkable
- sustainable
- accidental
- concern
- ambiguous
- commitment
- scepticism
- integrity
- denied breaking
- urged his colleague to go
- apologised for missing
- wanted to know
- promised to publish
- was accused of stealing

Unit 6: Science & Discovery

Writing Task: The Report

In the context of Science & Discovery, the Report is an excellent task type. It allows you to present findings, evaluate technological advancements, or discuss the implications of scientific research in a professional, structured manner.

Task (Cambridge C1 Advanced, Part 2)

Question:
You work for a local university that has recently invested heavily in new scientific research facilities. The university management has asked for a report on the impact of these new facilities on the student body and the research community.
Write a report for the management of the university. In your report, you should:
* Evaluate the effectiveness of the new laboratory equipment.
* Discuss how the new facilities have affected student engagement in scientific subjects.
* Make recommendations for future investments in research technology.
Write your report in 220–260 words.

Tips (en español)

Para dominar el Report en el nivel C1, sigue estas estrategias:

- Structure: Utiliza subtítulos claros para cada sección. Un reporte no se escribe en párrafos continuos sin guía; los encabezados ayudan al lector a encontrar la información rápidamente.
- Register: Mantén un tono formal y objetivo. Evita contracciones (don't, can't) y el uso de la primera persona (I think) a menos que sea para una recomendación directa. Usa la voz pasiva para sonar más profesional.
- Linking: Usa conectores de transición para organizar la información (e.g., Furthermore, Additionally, In contrast). No abuses de ellos; deben fluir naturalmente.
- Hedging (Cautela): En ciencia y reportes académicos, evita afirmaciones absolutas. En lugar de "The equipment is perfect", usa "The equipment appears to be highly effective". Esto demuestra sofisticación lingüística.
- Evaluación de ideas: No te limites a describir. El objetivo del reporte es analizar. No digas solo qué hay, sino qué impacto tiene (causa y efecto).
- Time management: Dedica 5 minutos a planificar los subtítulos, 35 minutos a escribir y 10 minutos finales a revisar la gramática y la longitud (word count).

Useful language

|
Expression |

Español |
Audio |
1 |
What immediately stands out is... |
Lo que destaca enseguida es... |
|
2 |
At first glance, the scene appears to... |
A primera vista, la escena parece... |
|
3 |
Whereas the first image suggests..., the second one points to... |
Mientras que la primera imagen sugiere..., la segunda apunta a... |
|
4 |
There is a striking contrast between... and... |
Hay un contraste marcado entre... y... |
|
5 |
The people seem to be dealing with... |
Las personas parecen estar lidiando con... |
|
6 |
It is highly likely that... |
Es muy probable que... |
|
7 |
One could infer that... |
Se podría inferir que... |
|
8 |
This might reflect a broader issue: ... |
Esto podría reflejar un problema más amplio: ... |
|
9 |
Although the setting is different, both images convey... |
Aunque el contexto es distinto, ambas imágenes transmiten... |
|
10 |
The overall impression is one of... |
La impresión general es de... |
|
11 |
This would be a useful example of... |
Esto sería un ejemplo útil de... |
|
12 |
I would argue that the second image feels more... |
Diría que la segunda imagen resulta más... |
|

Model answer

Report on the Impact of New Scientific Research Facilities
Introduction
The purpose of this report is to assess the impact of the recently installed research facilities on both the student body and the wider academic community. It evaluates current equipment effectiveness and provides recommendations for future development.
Effectiveness of Laboratory Equipment
The new state-of-the-art laboratory equipment has significantly enhanced the quality of practical research. It was observed that the precision of the new analytical tools has allowed for more complex experiments that were previously impossible. While the initial setup cost was substantial, the reliability of the technology has minimised downtime, ensuring that research projects proceed without interruption.
Impact on Student Engagement
There has been a marked increase in student engagement since the facilities became operational. The modern environment has fostered a more proactive approach to scientific inquiry. Furthermore, the availability of advanced technology has made science-related modules more attractive, leading to a surge in enrolment for postgraduate research programmes. Students have reported feeling better prepared for professional laboratory environments.
Recommendations
In light of these findings, it is suggested that the university continues to upgrade its digital infrastructure to complement the physical hardware. Specifically, investing in high-performance computing (HPC) would allow students to process the vast amounts of data generated by the new equipment. It is also recommended that regular maintenance schedules be strictly followed to preserve the longevity of these assets.
Conclusion
To conclude, the new facilities have been a transformative investment, boosting both research quality and student interest. Continued investment in digital integration will ensure the university remains at the forefront of scientific discovery.
(260 words)

Marking checklist

Al terminar tu escrito, verifica si cumples con estos criterios de Cambridge:

- Content: ¿Has respondido a todos los puntos de la tarea? (Equipamiento, estudiantes y recomendaciones). ¿El lector está totalmente informado?
- Communicative Achievement: ¿Has mantenido el tono formal y el formato de reporte (subtítulos)? ¿El lenguaje es objetivo y profesional?
- Organisation: ¿La información está organizada de forma lógica? ¿Has usado conectores para unir ideas y párrafos de manera fluida?
- Language: ¿Has usado vocabulario avanzado (e.g., state-of-the-art, surge, longevity) y estructuras complejas (pasiva, condicionales, hedging)? ¿Hay errores gramaticales?

Vocabulario para Writing & Speaking

Expression |

Español |
Useful C1 example |
scientific evidence |
pruebas científicas |
Scientific evidence should guide public policy. |
a groundbreaking discovery |
un descubrimiento revolucionario |
The vaccine was a groundbreaking discovery. |
to conduct research |
realizar investigación |
Universities conduct research into rare diseases. |
empirical data |
datos empíricos |
Empirical data supports the theory. |
a plausible explanation |
una explicación plausible |
There is a plausible explanation for the results. |
to test a hypothesis |
probar una hipótesis |
Researchers test a hypothesis before publishing. |
ethical oversight |
supervisión ética |
Clinical trials require ethical oversight. |
to expand our understanding |
ampliar nuestra comprensión |
Space research expands our understanding of the universe. |

Lesson 9: Speaking Lab

Speaking — describe & compare

Compara las dos imágenes (la escena de laboratorio y la naturaleza) y responde a la pregunta: ¿Cómo pueden los avances científicos ayudar a proteger el mundo natural?

speaking

Useful phrases

- It appears as though the scientist is... — Parece como si la científica estuviera... - One could surmise that the research focuses on... — Se podría suponer que la investigación se centra en... - In stark contrast to the clinical setting... — En marcado contraste con el entorno clínico... - There is a striking resemblance between... — Hay un parecido sorprendente entre... - The juxtaposition of technology and nature suggests... — La yuxtaposición de la tecnología y la naturaleza sugiere... - It is highly probable that the specimen is... — Es muy probable que el espécimen sea... - While the laboratory is sterile, the forest is... — Mientras que el laboratorio es estéril, el bosque es... - Judging by her expression, she seems to... — A juzgar por su expresión, parece que ella... - The scene conveys a sense of... — La escena transmite una sensación de... - One might argue that science and nature are... — Se podría argumentar que la ciencia y la naturaleza son... - The visual elements imply that... — Los elementos visuales implican que... - On the one hand... whereas on the other hand... — Por un lado... mientras que por otro lado... ### Pronunciación

Para sonar más natural en el examen, presta atención al sonido 'schwa' /ə/. Este es el sonido más común en inglés y ocurre en sílabas no acentuadas de palabras funcionales (como 'a', 'the', 'of' o el final de 'scientist'). En lugar de pronunciar cada vocal con claridad, relaja la lengua y produce un sonido neutro y breve. Por ejemplo, en 'a scientist', la 'a' no es /eɪ/, sino /ə/.

Model answer

In this image, we see a scientist working in a cutting-edge laboratory, which is juxtaposed with a lush, green forest visible through a large window. The atmosphere is a blend of clinical precision and organic beauty. It appears as though the researcher is studying a bioluminescent plant, perhaps attempting to understand how to replicate its natural properties through biotechnology. The contrast between the sterile, high-tech environment and the wild, untamed greenery outside is quite striking.
Regarding the question of how science can protect the natural world, one could surmise that this scene illustrates a harmonious relationship rather than a conflict. While some might argue that technological advancement often leads to environmental degradation, it is highly probable that modern science is our best tool for conservation. For instance, through genetic research or ecological monitoring, scientists can develop ways to preserve endangered species or combat climate change. Judging by the setting, it seems to suggest that scientific discovery is not an alternative to nature, but rather a means to understand and safeguard it. Ultimately, the integration of technology and biology could be the key to maintaining the delicate balance of our planet's ecosystems.

Lesson 10: Mediation Task

Mediation

Basándote en la información del anuncio, escribe un correo electrónico a tu grupo de estudio sugiriendo una visita conjunta. Debes explicar de qué trata la exposición, por qué es relevante para vuestros estudios y proponer los detalles logísticos (precio y horario) de manera formal pero amistosa.

Texto original (español)

El Museo de Ciencias de la ciudad ha anunciado la apertura de su nueva exposición interactiva: 'El Futuro de la Genética'. Esta muestra utiliza tecnología de realidad aumentada para permitir que los visitantes exploren el ADN de forma inmersiva. La exposición está diseñada para todas las edades, pero se recomienda un enfoque educativo. El precio de la entrada general es de 15 euros, pero los estudiantes y profesores tienen un 30% de descuento. La exposición estará abierta de martes a domingo, de 10:00 a 18:00. Es una oportunidad única para entender los avances científicos actuales.

Imagen de apoyo

mediation

Estrategias clave

- Identificar la información clave (temática, precio, horario) para integrarla de forma natural.
- Adaptar el registro de un anuncio informativo a un correo electrónico para compañeros (semi-formal).
- Sintetizar la información sin copiar frases literales del texto original.
- Utilizar conectores de transición para dar cohesión a la propuesta.
- Transformar datos técnicos en argumentos persuasivos para el grupo.
- Mantener el enfoque en el propósito de la tarea (sugerir una actividad académica/social).

Audiencia de destino

your university study group

Respuesta modelo (English)

Subject: Proposal for a group visit to the Science Museum
Hi everyone,
I hope you are all doing well. I was recently reading about a new exhibition at the City Science Museum titled 'The Future of Genetics', and I thought it would be a fantastic opportunity for our study group to visit together.
The exhibition uses cutting-edge augmented reality to provide an immersive look at DNA structures. Given our current module on molecular biology, I believe seeing these scientific advancements in such a visual way would complement our lectures perfectly.
Regarding the logistics, the exhibition is open from Tuesday to Sunday, between 10:00 and 18:00. The standard entry fee is £15; however, since we are students, we can benefit from a 30% discount, making it quite affordable.
I suggest we aim for a weekday morning to avoid the crowds. Please let me know your thoughts on this and if you would be interested in joining. If there is enough interest, I will look into booking a group slot.
Best regards,
[Your Name]

Lesson 11: Podcast Guide

Podcast Guide — Science & Discovery

Escuchar podcasts auténticos es esencial en el nivel C1 para acostumbrarse a la velocidad natural, los diversos acentos y el uso de lenguaje especializado. En esta guía, encontrarás recursos seleccionados para desafiar tu comprensión auditiva y ampliar tu léxico científico de forma orgánica.

Recommended podcasts (3 total)

1. BBC In Our Time

- Level & accent: British (Received Pronunciation/Academic), C1 appropriate: Yes.
- Recommended episode: "The Discovery of Oxygen" or "The Copernican Revolution".
- Why it's useful for C1: Este podcast utiliza un lenguaje académico de alto nivel y estructuras gramaticales complejas típicas de debates intelectuales. Es ideal para aprender a seguir argumentos extensos y matizados sobre historia de la ciencia.
- 5 key phrases to listen for:

To challenge the prevailing theory (Desafiar la teoría predominante)

- A paradigm shift (Un cambio de paradigma)
- To lay the groundwork for... (Sentar las bases para...)
- To be widely contested (Ser ampliamente cuestionado)
- The implications of this finding (Las implicaciones de este hallazgo)

2. TED Radio Hour (NPR)

- Level & accent: American / Mixed, C1 appropriate: Yes.
- Recommended episode: Any episode related to ”Neuroscience” or ”Future Technology”.
- Why it’s useful for C1: Presenta una mezcla de narrativa personal y datos científicos, lo que te ayuda a entender cómo conectar hechos con historias. El ritmo es dinámico, lo que entrena tu oído para la transición entre lenguaje coloquial y formal.
- 5 key phrases to listen for:

To push the boundaries of... (Ampliar los límites de...)

- Cutting-edge technology (Tecnología de vanguardia)
- To spark a debate (Despertar un debate)
- A breakthrough in the field (Un avance trascendental en el campo)
- To pose a significant question (Plantear una pregunta significativa)

3. The Inquiry (BBC World Service)

- Level & accent: British / International, C1 appropriate: Yes.
- Recommended episode: Episodes focusing on ”Climate Change” or ”Space Exploration”.
- Why it’s useful for C1: Se centra en preguntas específicas y respuestas rápidas, lo que te obliga a procesar información densa en poco tiempo. Es excelente para practicar la escucha de entrevistas estructuradas y opiniones expertas.
- 5 key phrases to listen for:

To be at the forefront of... (Estar a la vanguardia de...)

- To address the issue of... (Abordar el problema de...)
- The crux of the matter (El quid de la cuestión / El punto crucial)
- To yield significant results (Producir resultados significativos)
- To be inextricably linked to... (Estar inextricablemente ligado a...)

Active listening strategies (C1)

- Pre-listening activation: Antes de darle al play, lee el título y busca el contexto. Predice qué vocabulario técnico podrías escuchar para preparar tu cerebro.
- Avoid the ”word-for-word” trap: No intentes traducir cada palabra. En C1, el objetivo es captar la idea global (gist) y los matices, no cada partícula gramatical.
- Note-taking by concept: En lugar de escribir frases completas, utiliza esquemas o mapas mentales para anotar la relación entre ideas (causa, efecto, contraste).
- Listen for discourse markers: Presta especial atención a los conectores (e.g., however, nonetheless, consequently). Estos son las señales de tráfico que te indican hacia dónde va el argumento.
- Shadowing technique: Si escuchas una frase con una estructura compleja o un acento interesante, pausa el audio y repítela imitando la entonación exacta. Esto mejora tu fluidez y prosodia.
- Identify speaker intent: No solo escuches qué dicen, sino cómo lo dicen. Intenta identificar si el hablante está siendo sarcástico, cauteloso, entusiasta o escéptico.

Follow-up task

Task: The Scientific Synthesis

- Vocabulary Extraction: While listening, write down 8 new words or collocations. After the episode, look up their definitions and write one original sentence for each that relates to a different scientific topic.
- The Summary Challenge: Write a 150-word summary of the episode. You must use at least 4 of the "key phrases" you learned from the podcast guide to ensure you are practicing high-level structures.
- Oral Argument: Record a 2-minute voice note on your phone summarizing your opinion on the topic discussed. You must state whether you agree or disagree with the speaker, using formal C1-level expressions (e.g., "While I acknowledge the validity of..., I am inclined to believe that...").

Lesson 12: Media Guide

Cine & Series — Science & Discovery

Utilizar producciones audiovisuales de alta calidad es fundamental para entrenar el oído a velocidades naturales y captar matices de registro. En este nivel, el objetivo no es solo entender la trama, sino analizar cómo los personajes utilizan estructuras complejas para expresar ideas abstractas.

Oppenheimer

- Title, year, platform: Oppenheimer, 2023, Netflix / Prime Video (availability varies by region)
- Accent/dialect: Primarily American (Mid-Atlantic/Standard American), with some British accents in academic/military contexts.
- Why it's perfect for C1: The film features dense, sophisticated dialogue regarding theoretical physics, ethics, and political maneuvering. The vocabulary is highly academic yet used in high-stakes emotional contexts, making it ideal for mastering formal register.
- Episodes to start with: Watch the full film.

Language focus

-
"They were hesitant to proceed, but the urgency of the project outweighed their moral qualms."
Vocabulary note: Qualm /kwɑːm/ (duda moral, reparo).

- Grammar spotlight: This sentence uses a reporting-style structure. In advanced reported speech, we could transform this: The scientists expressed hesitation regarding the project's ethics. (Using reporting verbs like express + noun).

-
"He was accused of being a security risk, which complicated his standing with the committee."
Vocabulary note: Standing /ˈstændɪŋ/ (reputación, posición social/profesional).

- Grammar spotlight: This is a passive construction used to report an allegation. We can practice reporting this: The committee alleged that he was a security risk. (Reporting verb + that-clause).

-
”The implications of the discovery were so profound that they reshaped the entire field of physics.”
Vocabulary note: Profound /prəˈfaʊnd/ (profundo, trascendental).

- Grammar spotlight: This describes a consequence. In reported speech, we could use a verb of result: The narrator pointed out that the discovery had reshaped the field. (Reporting verb + that-clause).

Viewing task (active watching)

- Vocabulary Log: Note down at least 10 advanced words or idiomatic expressions per hour of viewing.
- Register Analysis: Identify moments where characters switch from ”Colloquial/Informal” (private conversations) to ”Formal/Academic” (lectures or committee hearings).
- Reporting Hunt: Listen for instances where one character tells another what a third person said (e.g., ”He suggested that we should...”). Write down these sentences to practice changing them from direct to reported speech.
- Oral Summary: After watching, record a 2-minute voice note on your phone summarising the central conflict of the film using at least three of the new vocabulary words.

Similar titles (2 alternatives)

- Interstellar (2014): Excellent for high-level scientific vocabulary and emotional depth.
- The Theory of Everything (2014): Great for practicing British English and nuanced, biographical storytelling.

Lesson 13: Everyday Scene

The Backyard Botanist

everyday_scene

En esta imagen, vemos a una persona aplicando el método científico en un entorno cotidiano: su propio jardín. Esta escena ilustra cómo el descubrimiento y la observación detallada son fundamentales para comprender la naturaleza, incluso en nuestras actividades diarias.

Preguntas para hablar (Speaking practice)

- Describe what is happening in this photograph in as much detail as possible.
- Based on the woman's expression and actions, what do you think she is trying to discover?
- How does this scene reflect the relationship between science and everyday life?
- Compare this quiet moment of discovery with how scientific breakthroughs are usually portrayed in the media.
- Have you ever engaged in a hobby that required similar levels of observation or experimentation?

Unit review — Science & Discovery

Al finalizar esta unidad, deberías ser capaz de utilizar estructuras complejas de reported speech para informar sobre hallazgos científicos, debates académicos y teorías con precisión. Habrás pasado de un uso básico de "say/tell" a un dominio de verbos de reporte más sofisticados que permiten matizar la intención del hablante.
Asimismo, habrás ampliado tu léxico especializado en temas de ciencia, tecnología y descubrimiento. Ahora deberías poder emplear colocaciones de nivel C1, procesos de formación de palabras y un registro formal adecuado para contextos académicos o profesionales, permitiéndote discutir temas abstractos con fluidez y precisión.

Grammar consolidation

Rewrite or complete the following sentences using the instructions in brackets to practice advanced reporting verbs (suggest, insist, deny, claim, etc.).

-
"I didn't break the laboratory equipment!" said the intern.
Rewrite using DENIED: _____.

-
"You should conduct more peer-reviewed studies before publishing," the professor told the student.
Rewrite using ADVISED: _____.

-
"The results are definitely conclusive," the scientist said.
Rewrite using CLAIMED: _____.

-
"Let's focus our research on renewable energy sources," the committee suggested.
Rewrite using SUGGESTED (using the -ing form): _____.

-
"I am certain that the hypothesis is correct," the researcher said.
Rewrite using INSISTED ON: _____.

-
"If you don't calibrate the sensors, the data will be useless," the technician warned.
Rewrite using WARNED: _____.

-
"The discovery was purely accidental," the journalist wrote.
Rewrite using STATED: _____.

-
"You must submit your findings by Friday," the editor told the author.
Rewrite using ORDERED/COMMANDED: _____.

-
Identify the error: The professor suggested me to redo the experiment.
Correct the sentence: _____.

-
Identify the error: He denied to have stolen the confidential data.
Correct the sentence: _____.

Vocabulary activation

A. Word Formation: Complete the sentences using the correct form of the word in capitals.

- The _____ of the new vaccine took longer than expected. (DEVELOP)
- Scientists are looking for a _____ to the problem of plastic pollution. (SOLVE)
- The experiment yielded _____ results that surprised the team. (REMARK)
- There is growing _____ about the ethics of gene editing. (CONTROVERSY)
- The discovery was a _____ breakthrough in the field of physics. (BREACH)

B. Collocations: Match the verb with the correct noun to form a C1-level collocation.
Verbs: 1. Conduct / 2. Undertake / 3. Yield / 4. Pose / 5. Bridge
Nouns: A. a threat / B. a gap / C. an experiment / D. results / E. a study

- To _____ a study.
- To _____ a threat.
- To _____ results.
- To _____ a gap.
- To _____ an experiment.

C. Register Choice: Choose the most appropriate formal word to complete the sentence.

- The data _____ (showed / manifested) a significant correlation between the two variables.
- The researchers _____ (did / conducted) an extensive investigation into the effects of radiation.

Integrated skills task

Source Text: The Ethics of Artificial Intelligence
The rapid advancement of Artificial Intelligence (AI) has sparked a global debate regarding the ethical implications of autonomous systems. While proponents argue that AI can solve complex problems—ranging from climate change to medical diagnosis—critics warn of the potential for bias, loss of privacy, and the displacement of human labour. The core of the issue lies in 'algorithmic accountability': if an AI makes a life-altering decision, who is responsible?
Current regulatory frameworks often struggle to keep pace with technological leaps. Some suggest that strict international laws are necessary to prevent misuse, while others argue that over-regulation could stifle innovation. As we move closer to a future where AI is integrated into every aspect of daily life, the scientific community must lead the conversation on establishing ethical boundaries. We are no longer just observing technology; we are co-existing with it.
Writing Task
Instrucciones: Basándote en el texto anterior, escribe un ensayo de opinión (opinion essay) de entre 180 y 220 palabras. Debes analizar los pros y los contras de la regulación de la IA y dar tu propia opinión sobre si la innovación debe prevalecer sobre la ética o viceversa. Utiliza vocabulario de nivel C1 y estructuras de reporte si es necesario para referenciar las ideas del texto.

Speaking checkpoint

Responde a estas preguntas de forma oral para practicar tu fluidez y capacidad de argumentación. Intenta hablar durante 1-2 minutos por cada una.

- Compare: Compare the importance of theoretical science versus practical, applied science in modern society.
- Speculate: How might the discovery of life on another planet change our understanding of human existence?
- Evaluate: Evaluate the impact of social media algorithms on human psychology. Are they more harmful than helpful?
- Justify: Some argue that space exploration is a waste of resources given the problems on Earth. Justify your position on this matter.
- Speculate: How do you think medical technology will evolve in the next fifty years?
- Evaluate: To what extent should scientific research be funded by private corporations rather than governments?

Self-assessment rubric

Criteria |
Needs work (Necesita mejorar) |
Solid (Sólido) |
Exam-ready (Preparado para el examen) |
Accuracy |
Frequent errors in grammar and spelling. |
Mostly accurate; errors do not impede communication. |
High level of grammatical precision; complex structures used correctly. |
Range |
Limited vocabulary and repetitive structures. |
Good range of vocabulary and varied sentence structures. |
Wide range of sophisticated vocabulary and advanced grammatical structures. |
Fluency |
Frequent hesitations and pauses. |
Generally fluent with some natural hesitation. |
Smooth, natural flow with minimal hesitation. |
Task Achievement |
Did not fully address the prompt. |
Addressed all parts of the task clearly. |
Fully developed ideas with depth and nuance. |

Answer key

Grammar consolidation
1. The intern denied breaking the laboratory equipment.
2. The professor advised the student to conduct more peer-reviewed studies.

3. The scientist claimed that the results were definitely conclusive.
4. The committee suggested conducting more research on renewable energy sources.
5. The researcher insisted on the hypothesis being correct (or: insisted that the hypothesis was correct).
6. The technician warned that if they didn't calibrate the sensors, the data would be useless.
7. The journalist stated that the discovery was purely accidental.
8. The editor ordered the author to submit their findings by Friday.
9. The professor suggested (that) I redo the experiment. (Note: suggest cannot be followed by object + to-infinitive).
10. He denied having stolen the confidential data. (Note: deny is followed by -ing or a that-clause).

Vocabulary activation

1. development
2. solution
3. remarkable
4. controversy
5. breakthrough
6. Conduct a study
7. Pose a threat
8. Yield results
9. Bridge a gap
10. Undertake an experiment
11. manifested
12. conducted