



## Vocabulary 1

## Creativity

- 1 Complete the text. Some letters are given.

## CREATIVE PROBLEM-SOLVING

Whenever you have a tough problem to solve, you may be tempted simply to <sup>1</sup> u \_\_\_\_\_ your intuition and come up with a common-sense solution. That often leads to a satisfactory outcome, but it might not always be the best. Instead, you should <sup>2</sup> c \_\_\_\_\_ r a much wider range of alternatives. Start by <sup>3</sup> b \_\_\_\_\_ g a long list of potential solutions to your problem. At this stage, it's best to <sup>4</sup> s \_\_\_\_\_ d judgment over which ideas are good and bad, and simply collect as many as possible. When you've exhausted your ideas, it's time to <sup>5</sup> i \_\_\_\_\_ y

the pros and cons of each option. By this stage, you should have a pretty good idea of the best solution, but before you <sup>6</sup> d \_\_\_\_\_ your conclusion, take a few moments to <sup>7</sup> p \_\_\_\_\_ t all the possible effects of your solution.

- 2 Choose the correct options.

- 1 I *receive* / *get* most of the inspiration for my novels from real-life events that happen to me.
- 2 Marco is very good at thinking on his *feet* / *box*. It never takes him long to make a decision.
- 3 In this class, I would like everyone to say what's on their mind and just think *out* / *on* loud.
- 4 Why are you always *brainstorming* / *daydreaming* during lessons? You need to pay attention!
- 5 Where did the *train* / *flash* of inspiration for your new video come from?
- 6 I start by planning the story's characters, and then everything else just falls into *place* / *space*.
- 7 Her novels have *followed* / *captured* people's imagination all around the world.
- 8 Most of my classmates aren't very creative and find it hard to think outside the *box* / *mind*.
- 9 He's very confusing to listen to. I'm struggling to follow his *pattern* / *train* of thought.
- 10 I often visit second-hand clothes shops, which *reacts* / *triggers* new ideas for my own designs.

- 3 Complete the text with the correct forms of the words and phrases from the box.

boost dream up emerge explore follow through  
get stuck go blank stick with

## Creativity workshops for young bloggers

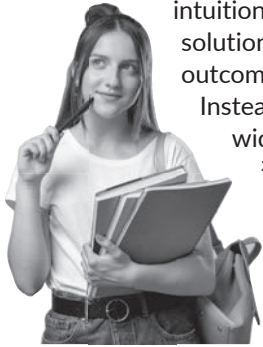
Do you ever <sup>1</sup> \_\_\_\_\_ for ideas when you are trying to write your latest blog post or produce your next video? Are you looking for new ways to <sup>2</sup> \_\_\_\_\_ your creativity online, gain more followers and get more people to share and engage with your posts and content? Then join us on the next Open Skies workshop at our beautiful New Forest centre, and learn how to unleash the creative genius within us all.

Each morning starts with a long walk in the forest, where the peaceful surroundings will allow new ideas and thoughts to <sup>3</sup> \_\_\_\_\_. Once back at the centre, the days are spent in group workshops, where you can meet and share ideas with other bloggers and take part in activities that will help you to develop the creative sides of the brain and <sup>4</sup> \_\_\_\_\_ completely new content ideas and original ways to write, produce and promote your blog. Our tutors will help you to <sup>5</sup> \_\_\_\_\_ the possibilities that are available to you next time your mind <sup>6</sup> \_\_\_\_\_. After the course, our tutors will continue to support you on your creative journey, helping you <sup>7</sup> \_\_\_\_\_ with the ideas you've generated and ensuring that you <sup>8</sup> \_\_\_\_\_ them and don't give up.

- 4★ Check you understand the underlined collocations with *idea*. Then match sentences 1–7 to follow-up sentences a–g.

- 1 I find it hard to come up with novel ideas.
- 2 Let's meet up tomorrow to bounce some ideas around.
- 3 I'm toying with the idea of starting my own business.
- 4 I can see she has a lot of ingenious ideas in her head.
- 5 Unfortunately, all his ideas were a bit half-baked.
- 6 Please feel free to share any ideas that occur to you.
- 7 The ideas in my book stem from my experiences as a language learner.

- a We're always open to new ideas.
- b But she finds it very hard to convey them to others.
- c Maybe we'll all give each other some inspiration!
- d They all needed a lot more thought.
- e It's much easier to copy other people's!
- f But of course I've fleshed them out with plenty of research.
- g But I haven't really thought it through yet.



## Past perfect simple and past perfect continuous



## 1 Match questions 1–6 to answers a–f.

- 1 Where did you get the ideas for your poem? \_\_\_\_\_
  - 2 Why didn't you enjoy the film? \_\_\_\_\_
  - 3 How could you afford to buy such an expensive guitar? \_\_\_\_\_
  - 4 Why were you so sleepy yesterday morning? \_\_\_\_\_
  - 5 Why was your bus late? \_\_\_\_\_
  - 6 Why were you smiling in this photo? \_\_\_\_\_
- a I'd been watching my favourite series till 3 am!
  - b It had been snowing during the night and the whole city was jammed.
  - c We'd just won first place in a dancing competition.
  - d They were all things that had happened to me as a child.
  - e I'd been saving up for years.
  - f I'd already read the book, so I knew how it ended.

## 2 Choose the correct options.

- 1 I *hadn't heard* / *hadn't been hearing* of this band until I saw them play at the festival last weekend.
- 2 He was exhausted because he *'d worked* / *'d been working* all night to try and finish the portrait.
- 3 Shoppers *had waited* / *had been waiting* outside the store since midnight to buy the new smartphone.
- 4 Lisa *had told* / *had been telling* Pablo many times about the change of plan, but he still forgot.
- 5 They *'d sat* / *'d been sitting* in the cinema for ten minutes before they realised they were watching the wrong film.
- 6 I couldn't write down my ideas because I *'d lost* / *'d been losing* my pen.

## 3 Complete the text with the correct forms of the verbs in brackets. Use the past perfect simple or continuous.

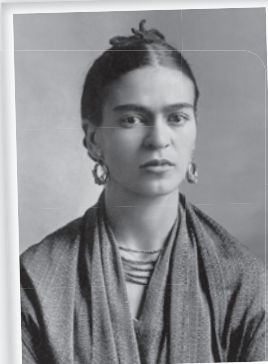
Many famous artists are inspired by traumatic events in their lives, and for Frida Kahlo, the great Mexican artist, that event happened in 1925.

Kahlo <sup>1</sup> \_\_\_\_\_ (not always want) to be an artist. In fact, from an early age, she <sup>2</sup> \_\_\_\_\_ (be) more interested in science. She <sup>3</sup> \_\_\_\_\_ (study) at the National Preparatory School in Mexico City for almost three years when she was involved in a serious bus accident. It was during her recovery that she taught herself to paint, although her interest in art <sup>4</sup> \_\_\_\_\_ (begin) some years before that.

Kahlo's father was a professional photographer, and as a child she <sup>5</sup> \_\_\_\_\_ (assist) him in his studio. She <sup>6</sup> \_\_\_\_\_ (also / learn) how to draw at art classes she attended before deciding on a career in medicine. Kahlo's interest in art was also inspired by Diego Rivera, whom she <sup>7</sup> \_\_\_\_\_ (meet) while she was at the preparatory school. At the time, Rivera was a renowned mural painter who <sup>8</sup> \_\_\_\_\_ (study) in Spain and become friends with Pablo Picasso. Rivera <sup>9</sup> \_\_\_\_\_ (paint) a mural at Kahlo's school when she became interested in him and his work.

After she <sup>10</sup> \_\_\_\_\_ (recover) from her accident, Kahlo met Rivera again, and in 1929 they got married. After her marriage, she became more interested in Mexican folk art and her style of painting changed. During the 1930s, her work became more widely known, and by the end of the decade, she <sup>11</sup> \_\_\_\_\_ (have) exhibitions in New York and Paris, and the Louvre Museum <sup>12</sup> \_\_\_\_\_ (buy) one of her paintings.

Today, Frida Kahlo is recognised as one of the world's best-loved modern artists, whose work continues to appeal to new generations of artists and art lovers.



## 4★ Complete the second sentence with up to four words so that it means the same as the first one. Use the word in capitals.

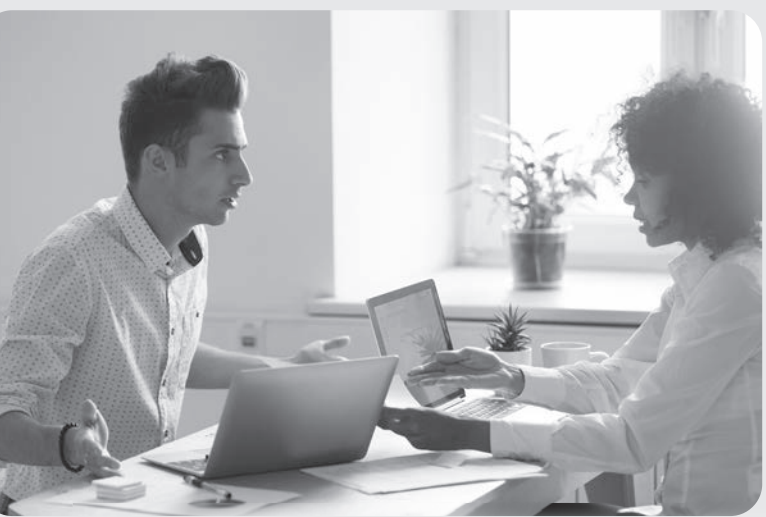
- 1 I went to Italian classes for months before my trip, so I managed to get by in Italian. **BEEN**  
I was able to get by in Italian during my trip because I \_\_\_\_\_ Italian classes for months.
- 2 Dickens was still writing *The Mystery of Edwin Drood* when he died. **FINISHED**  
When Dickens died, he \_\_\_\_\_ *The Mystery of Edwin Drood*.
- 3 The music finished before we got to the party. **ALREADY**  
The music \_\_\_\_\_ by the time we got to the party.
- 4 We waited and then the bus came after thirty minutes. **WAITING**  
We \_\_\_\_\_ half an hour when the bus came.
- 5 In 2018, Olga Tokarczuk became the first female Polish prose writer to win the Nobel Prize in Literature. **EVER**  
Before Olga Tokarczuk won the Nobel Prize in Literature in 2018, no Polish woman \_\_\_\_\_ the award for prose.

# 1.3 Speaking

## Checking and clarifying information

- 1 Complete the conversation with the words from the box. There is one extra word. Who are the people?

essentially mean saying straight what with words



Anna So, I read the script, and I think it's pretty good, but some of it doesn't sound very realistic.

Tom Let me get this <sup>1</sup> \_\_\_\_\_. It's based on a true story, so it's completely realistic.

Anna What I'm <sup>2</sup> \_\_\_\_\_ is, some of the dialogue needs working on. <sup>3</sup> \_\_\_\_\_, I'm not sure the two main characters would have been so calm in such a difficult situation.

Tom You <sup>4</sup> \_\_\_\_\_ that people can't stay calm when they're under pressure?

Anna <sup>5</sup> \_\_\_\_\_ I mean is those two characters probably wouldn't have stayed calm. In other <sup>6</sup> \_\_\_\_\_, I think we need to change the way they react to each other.

Tom is a(n) \_\_\_\_\_.

Anna is his \_\_\_\_\_.

- 2 Correct the mistakes in the sentences. Cross out one word in each sentence.

- Let me to put that another way. You need to be a lot more careful next time.
- What it boils me down to is that I've run out of ideas.
- I'm not quite the following here. What do you mean?
- It's quite a complex process, but put in a nutshell, you need to check the instructions online.
- Sorry, what was in that? I didn't hear the last word.

- 3 Choose the correct options.

1 X: While I'm out, can you keep an eye on the ...

Y: \_\_\_\_\_

X: The soup. Make sure it doesn't boil over.

A Can you give an example?

B The what?

C What else?

2 X: I meant ten o'clock at night, not the morning.

Y: \_\_\_\_\_

X: Good. Sorry I didn't make myself clear.

A Exactly. It's up to you.

B I'm afraid you've lost me.

C Ah, I'm with you now.

3 X: What do you mean by 'beyond our means'?

Y: \_\_\_\_\_, it's too expensive.

X: Ah, that makes sense now.

A Simply put

B As you can tell

C If I'm hearing correctly

4 X: She never came to my house last night, and she never called or texted me.

Y: \_\_\_\_\_ you really had no idea where she was?

X: That's right, I didn't.

A Let me put that another way;

B Let me get this straight;

C What I'm saying is that

- 4 Complete the dialogue. The first and last letters are given.

X: Can you do me a favour? There's a competition at our school to write a short story and, well, in a <sup>1</sup> n \_\_\_\_\_, I don't have any ideas.

Y: OK, I'm not quite <sup>2</sup> f \_\_\_\_\_ g here.

Am I <sup>3</sup> r \_\_\_\_\_ t in thinking you'd like me to give you some ideas for the plot?

X: The <sup>4</sup> w \_\_\_\_\_ t?

Y: The plot. In <sup>5</sup> o \_\_\_\_\_ r words, what happens in the story.

X: Ah, I'm <sup>6</sup> w \_\_\_\_\_ h you now. Well, yes, that would be great. But not just some ideas.

What it <sup>7</sup> b \_\_\_\_\_ s down to is that I'd like to take advantage of your skills as a writer, too.

Y: Sorry, what was that? If I'm <sup>8</sup> h \_\_\_\_\_ g correctly, you seem to be asking me to write the story for you. Listen, I don't mind helping you ...

X: So, you're <sup>9</sup> s \_\_\_\_\_ g that you'll think about it?

Y: No! Let me get this <sup>10</sup> s \_\_\_\_\_ t. I'll help you, but I'm not going to do it for you. Is that clear?

X: Yes, that makes <sup>11</sup> s \_\_\_\_\_ e now. Thanks a lot. I really appreciate it.



## A blog post about an unusual exhibition



home

blog

## Lego art

1 \_\_\_\_\_

I've got to tell you about an exhibition I went to recently that you really should check out. It's by the artist Nathan Sawaya, and it's called *The Art of the Brick*. You might have heard of it because it has been touring the world for more than a decade. CNN even described it as one of the world's 'must-see exhibitions'. However, it has also generated a fierce debate in the world of art. So, what is so special about Nathan Sawaya's art? He creates it out of Lego.

2 \_\_\_\_\_

Nathan's a really interesting guy, but his background isn't in art. He actually studied law at New York University. He had been working as a corporate lawyer in New York City before he swapped the world of business for his main passion, Lego art, in 2004. Later that year, he opened an art studio in New York City. While art and business may seem to be worlds apart, it seems likely to me that Nathan's corporate background and experience gave him a competitive edge in the brutally challenging art scene, where most artists barely scratch a living from their work.

3 \_\_\_\_\_

In 2007, Nathan held his first exhibition, *The Art of the Brick*. As the first artist to exclusively use Lego bricks as an art medium, he quickly gained international attention, from both fans and critics and also from bloggers like me! The exhibition was soon touring the world, and wherever it went, it attracted crowds of people. Many of the visitors were adults with fond memories of playing with Lego themselves as children, while many of the children were inspired and engaged by his art. He's now believed to be the eighth most popular artist in the world, whose works have sold for substantial sums.

4 \_\_\_\_\_

After I visited the exhibition, it wasn't difficult to see why it had become such a phenomenon. Nathan's art is impressive in scale, striking in appearance and thought-provoking. And most importantly, according to the artist himself, 'it engages the child in all of us while simultaneously illuminating sophisticated and complex concepts. Everyone can relate to the medium since it is a toy that many children have at home.' The highlight for me was three giant face masks in red, yellow and blue, which are both stunning and unsettling and really challenged my perceptions. I was certainly left with many questions about what is real and what isn't.

5 \_\_\_\_\_

But is it art and does it have a place in an art gallery? Not everyone agrees. When art critic Jonathan Jones reviewed the exhibition, he wrote that Lego was 'enormous fun' and that it didn't need to be described as something as profound as art. I'm not so sure and neither is Nathan, who has said that there are no rules in art. And after all, can't art be both fun and serious? While it's hard to describe the Lego replica of Michelangelo's *David* in the exhibition as art, other sculptures, such as those astonishing face masks, are much more provocative. So if that isn't art, then I guess we need to ask what is?

1 Read the blog post and match headings A-F to paragraphs 1-5. There is one extra heading.

- A My opinions of the art
- B Fierce criticism
- C Controversial questions
- D My latest recommendation
- E The road to global fame
- F An unexpected backstory

2 Read the blog post again and choose the correct options.

- 1 Why does the writer think readers may know about the exhibition?
  - A It has been featured recently on TV.
  - B It has been around for a long time.
  - C It is the only exhibition that uses Lego.
  - D The artist has had a number of previously successful exhibitions.
- 2 What was unique about Sawaya's first exhibition?
  - A The exhibition attracted both adults and children.
  - B It was given international attention.
  - C He made his work from nothing but Lego.
  - D It was put on in many different countries at the same time.
- 3 The artist says that using Lego
  - A made it easier for people to feel a connection with the work.
  - B made sense because his children had lots of it at home.
  - C was easier than working with other materials.
  - D was much more fun than using other materials.
- 4 Which claim from the blog post is not presented as the writer's opinion?
  - A Nathan's business background helped his career as an artist.
  - B People have paid a lot of money for Nathan's art.
  - C Nathan's work deserves to be successful.
  - D Some of Nathan's works are less artistic than others.
- 5 Which statement best describes the writer's main point of view?
  - A Sawaya's work follows the rules of art.
  - B The worlds of art and business are closer than they seem.
  - C More artists should take their art less seriously.
  - D Art can be fun and still make you think.

3 Answer the questions.

- 1 What is the 'fierce debate' mentioned in paragraph 1?  
\_\_\_\_\_
- 2 What does the writer suggest about most artists?  
\_\_\_\_\_
- 3 How does the writer feel about Jonathan Jones's criticisms?  
\_\_\_\_\_

**1** Complete the text with the words from the box. There are two extra words.

advertising bargain brand consumers copyright promotional ripped special value

Advertising serves three main purposes. At the most basic level, it communicates information about <sup>1</sup> \_\_\_\_\_ campaigns, such as whether there's a(n) <sup>2</sup> \_\_\_\_\_ offer on a particular product at the moment, e.g. 'buy one, get one free'. At a deeper level, it's also about building trust in the <sup>3</sup> \_\_\_\_\_. Customers need to believe that the products are worth the money and feel confident that they aren't being <sup>4</sup> \_\_\_\_\_ off. Finally, the most sophisticated <sup>5</sup> \_\_\_\_\_ techniques are designed to build brand loyalty so that <sup>6</sup> \_\_\_\_\_ aren't tempted to switch to a cheaper copy of their usual brand. To some extent, legal tools, such as <sup>7</sup> \_\_\_\_\_ and trademarks, provide some protection against such copying, but brand loyalty is by far the most powerful weapon.

**2** Choose the correct options.

- 1 In the 1980s, Levi's used upbeat pop songs from the 1950s in a *haunting / legendary / static* TV advertising campaign, which is still considered one of the best campaigns ever.
- 2 I prefer not to get into *crafted / ingenious / philosophical* questions, such as whether advertising is art. To me, if it works, that's all that matters.
- 3 In the twentieth century, billboards around sports pitches used to be *philosophical / static / vibrant*, but modern technology allows the adverts on them to change and move during a match.
- 4 We pride ourselves on producing highly *crafted / haunting / legendary* advertising campaigns, with extremely careful attention to detail.
- 5 Consumers tend to ignore most adverts, so advertisers need to come up with *ingenious / static / vibrant* techniques to grab and hold their attention long enough to get the message across.
- 6 My favourite advert starts with somebody walking nervously through a spooky forest, accompanied by *crafted / haunting / legendary* music to build a sense of dread.
- 7 Roadside advertising hoardings often make use of *ingenious / philosophical / vibrant* colours, such as bright red or yellow, to catch drivers' attention in a split second.

**3** Put the lines of the text (a-g) in the correct order.

- a many ideas from marketing, such as the power of intrigue and surprise. It aims to spark
- b people who might not necessarily see themselves as avid readers, to get them to think
- c at people's heartstrings so that they are desperate to visit our site to find out how they end.
- d Recently, we've been working on an advertising campaign which is designed to nurture
- e intrigue by putting the beginnings of short stories on posters. These have been selected to pull
- f twice about their assumptions about literature. The campaign encapsulates
- g young people's long-term interest in literature. We're targeting

**4** Choose the correct options.

### Creativity through constraints

I always used to struggle to <sup>1</sup> \_\_\_\_\_ novel ideas for my job as a copywriter for an advertising agency. Once, I was tasked with inventing a new name for a brand of deodorant, but I didn't have a clue where to start. The ideas I generated during my <sup>2</sup> \_\_\_\_\_ sessions were painfully predictable. But a few years ago, I came across a simple but <sup>3</sup> \_\_\_\_\_ technique that transformed my ability to think outside the <sup>4</sup> \_\_\_\_\_: creativity through constraints. The idea is that before you start thinking, you impose a constraint on yourself. For example, let's say your answer needs to start with the letter 'P'. Now if we try to come up with a name for our deodorant, it's much easier to get started: 'pure', 'petal', 'pretty', 'power', and so on. Of course, once you've used the technique to <sup>5</sup> \_\_\_\_\_ a few ideas, it's fine to ignore your constraint. So the word 'power' might lead us to 'energy', and we might end up with a brand name such as 'Pure Energy'. Try the technique for yourself next time your mind goes <sup>6</sup> \_\_\_\_\_. You'll be amazed at the new levels of creativity you can spark!

- |                    |                 |
|--------------------|-----------------|
| 1 A follow through | B dream up      |
| C come up          | D rip off       |
| 2 A intuition      | B daydreaming   |
| C copyright        | D brainstorming |
| 3 A philosophical  | B vibrant       |
| C emotional        | D ingenious     |
| 4 A box            | B edge          |
| C feet             | D brand         |
| 5 A emerge         | B nurture       |
| C trigger          | D boost         |
| 6 A twice          | B blank         |
| C stuck            | D out           |



A podcast about art crime

1 Complete the quiz with the correct words. The first letters are given. Then tick (✓) the true statements. Check your results on page 172.

How much do you know about copyright?

- 1 Once an author's work is in the p\_\_\_\_\_ d\_\_\_\_\_, everyone can use it freely.
- 2 You only need to c\_\_\_\_\_ y\_\_\_\_\_ s\_\_\_\_\_ when you are quoting directly from them. Otherwise there is no need to.
- 3 In Poland, producing or selling c\_\_\_\_\_ goods can result in a prison sentence.
- 4 Many Polish academic institutions use special p\_\_\_\_\_ detection software, such as *Antyplagiat*. A single attempt by a student to g\_\_\_\_\_ c\_\_\_\_\_ f\_\_\_\_\_ another person's work may result in automatic expulsion.
- 5 Only certified inventors have the right to t\_\_\_\_\_ o\_\_\_\_\_ a p\_\_\_\_\_ for their invention.
- 6 Copyrighting your i\_\_\_\_\_ p\_\_\_\_\_ is not required, but it's recommended if you want to protect your creative ideas.
- 7 Your use of someone else's content on social media will not i\_\_\_\_\_ their c\_\_\_\_\_ if you do not intend to profit from it and cite your source.

2 The words in the box are from a podcast. What do you think the podcast is about?

auctioneers conman dealer deception fake forger fraud masterpiece replicas

3 Complete the sentences with the words from the box in exercise 2.

- 1 An art \_\_\_\_\_ is a person who copies paintings, etc. and pretends the copies are real.
- 2 \_\_\_\_\_ is a crime that involves lying in order to trick people.
- 3 \_\_\_\_\_ involves making people believe something that isn't true.
- 4 \_\_\_\_\_ are (almost) perfect copies of other things.
- 5 A \_\_\_\_\_ is a copy that is designed to deceive people into thinking it's real.
- 6 A \_\_\_\_\_ is a person who makes a living by tricking others.
- 7 A \_\_\_\_\_ is an extremely good piece of art, music, etc.
- 8 \_\_\_\_\_ are people and companies that organise auctions.
- 9 An art \_\_\_\_\_ makes a living by buying and selling works of art.

4 01 Listen to a podcast about John Myatt and John Drewe. Who does each statement refer to? Write M (Myatt), D (Drewe) or B (both).

- 1 One of his parents was a farmer. \_\_\_\_\_
- 2 He studied at art school. \_\_\_\_\_
- 3 He was honest about his work at first. \_\_\_\_\_
- 4 He bought many paintings. \_\_\_\_\_
- 5 He got £12,500 from Christie's. \_\_\_\_\_
- 6 He was sent to prison. \_\_\_\_\_
- 7 He still sells paintings now. \_\_\_\_\_

5 01 Listen to the podcast again and complete the sentences.

- 1 John Myatt became a highly talented artist while \_\_\_\_\_.
- 2 He decided to start selling his paintings because \_\_\_\_\_.
- 3 Drewe claimed that \_\_\_\_\_ had painted the pictures.
- 4 Some auction houses and dealers paid \_\_\_\_\_ for Myatt's forgeries.
- 5 The police have claimed that Myatt committed \_\_\_\_\_.

6 Match the sentence halves from the podcast to make collocations.

- 1 ... and forged paintings that would generate \_\_\_\_\_
  - 2 He won \_\_\_\_\_
  - 3 He was completely honest \_\_\_\_\_
  - 4 ... a career conman and notorious \_\_\_\_\_
  - 5 The two of them became partners \_\_\_\_\_
  - 6 Myatt devoted more time \_\_\_\_\_
  - 7 Drewe spent two years behind \_\_\_\_\_
  - 8 After he had served \_\_\_\_\_
  - 9 His fakes are now in huge \_\_\_\_\_
  - 10 Myatt is finally able to get credit \_\_\_\_\_
- a bars.  
 b profits of over €25 million.  
 c demand.  
 d for his amazing artistic skills.  
 e liar.  
 f to his paintings.  
 g a scholarship to go to a private boarding school.  
 h his sentence, he took up painting again.  
 i in crime.  
 j about what he was doing.







▶ VIDEO 03

**1 Complete the sentences with the correct forms of the words in brackets.**

- I always knew you'd be a great artist! Not for a moment \_\_\_\_\_ (I / doubt) your talent!
- It's a terrible film. Not only \_\_\_\_\_ (it / be) too long, but the ending is also completely predictable.
- He was an amazing musician, and his death is a great loss. Never again \_\_\_\_\_ (we / hear) such haunting music as he played.
- When I was studying physics, little \_\_\_\_\_ (I / know) that I'd end up becoming a performance artist!
- Although she's a famous artist now, not until she was in her fifties \_\_\_\_\_ (she / sell) a single painting.
- I've been to many extraordinary exhibitions over the years, but never \_\_\_\_\_ (I / witness) anything as bizarre as this.
- The artist worked incredibly quickly on my portrait. Scarcely \_\_\_\_\_ (I / sit) down when she had already finished!

**2 Complete the second sentence so that it means the same as the first one. Use the correct past perfect simple forms.**

- The product hadn't been on sale for very long when the company began receiving complaints.  
Barely \_\_\_\_\_
- She had just finished writing her first novel when she started on the sequel.  
No sooner \_\_\_\_\_
- Soon after the plane had taken off, I realised that my handbag was missing.  
Scarcely \_\_\_\_\_
- They had just left the house when it started raining.  
Hardly \_\_\_\_\_
- The concert had just begun when the woman next to me passed out.  
No sooner \_\_\_\_\_
- I had just bought my new car when I was involved in a car crash.  
Barely \_\_\_\_\_
- Just after they had arrived at the museum, the fire alarm went off.  
Hardly \_\_\_\_\_

**3 Complete the story with the verbs from the box.**

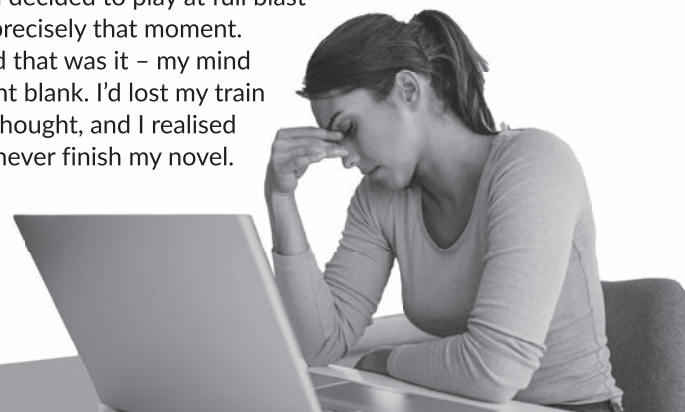
comes lay ran (x2) sat stood (x2)  
was pouring were (x2)

Through the dark forest <sup>1</sup> \_\_\_\_\_ the thief, as fast as his legs could carry him. In his pockets <sup>2</sup> \_\_\_\_\_ bags of gold that he had stolen from the villagers as they had slept. As he emerged into a clearing in the forest, there, in front of him, <sup>3</sup> \_\_\_\_\_ an old wooden hut. From the chimney <sup>4</sup> \_\_\_\_\_ thick smoke. The thief peered through the dusty windows. Inside, on a wooden chair <sup>5</sup> \_\_\_\_\_ a little old man, all alone. And all around him <sup>6</sup> \_\_\_\_\_ bags of what appeared to be gold. The greedy thief kicked down the door and strode into the little house. 'Give me that gold,' he yelled. 'I'm terribly sorry, but that gold isn't mine,' said the old man. 'It belongs to my sister. She's gone hunting in the forest, but she'll be back soon. In fact, here she <sup>7</sup> \_\_\_\_\_ now.' Slowly, the thief turned to look back out through the door. There, towering over his head, <sup>8</sup> \_\_\_\_\_ an enormous giant. In her hands <sup>9</sup> \_\_\_\_\_ two moose that she had caught. The thief took one look at her and away he <sup>10</sup> \_\_\_\_\_ as fast as his legs could carry him.

**4 Complete the text with the correct forms of the words from the box. There are two extra words.**

attempt come drift inspire one  
scarce soon work

Last Wednesday, at one o'clock in the morning, I turned on my computer, determined to finish writing my novel. I <sup>1</sup> \_\_\_\_\_ on it for over two years, and was generally pleased with my work ... apart from the final chapter, which I'd written and rewritten perhaps five times, but not <sup>2</sup> \_\_\_\_\_ had I managed to find the twist that would form a suitably powerful ending. But as I <sup>3</sup> \_\_\_\_\_ off to sleep that night, I'd finally had that flash of <sup>4</sup> \_\_\_\_\_. I knew how to finish my story! However, no <sup>5</sup> \_\_\_\_\_ had I started to write than I was interrupted by a noise. Through the walls of my flat <sup>6</sup> \_\_\_\_\_ the muffled sound of heavy metal music, which my neighbour had decided to play at full blast at precisely that moment. And that was it - my mind went blank. I'd lost my train of thought, and I realised I'd never finish my novel.



## Grammar and vocabulary practice

- 1 Read the conversation and rewrite verbs 1–6 to add emphasis. Use *do*, *does* or *did*.



Cal Wow! Is that your painting? It <sup>1</sup> **looks** \_\_\_\_\_ amazing!

Bea Thanks. But it was just painting by numbers, so I only followed the instructions. But I <sup>2</sup> **find** \_\_\_\_\_ it so relaxing.

Cal Yes, it <sup>3</sup> **sounds** \_\_\_\_\_ like a nice hobby. Can I touch your painting?

Bea It's best not to. The paint's still wet.

Cal OK. So, is there no creativity involved in painting by numbers?

Bea Not much! But I <sup>4</sup> **changed** \_\_\_\_\_ the colour of these flowers to make them look prettier.

Cal Really? Yes, they <sup>5</sup> **look** \_\_\_\_\_ lovely. Let me take a closer look. Oh no! I've got paint on my nose!

Bea Well, I <sup>6</sup> **warned** \_\_\_\_\_ you!

- 2 Complete the sentences with the correct words formed from the words in brackets. There may be more than one correct answer.

- We're going to run a(n) \_\_\_\_\_ (promote) campaign to tell people about our special offer.
- Only when you have all the relevant data should you draw your \_\_\_\_\_ (conclude).
- Some artists claim to have \_\_\_\_\_ (legend) powers to see the essence of things, not just what's visible on the outside.
- I have lots of comments on your story, but \_\_\_\_\_ (simple) put, I think you need to change the ending.
- Of course I have my own opinions, but I try to suspend \_\_\_\_\_ (judge) until I've heard what everyone else has to say.
- \_\_\_\_\_ (consume) aren't interested in the features of your product. They just want to know how it'll solve their problems.
- The conman was a master of \_\_\_\_\_ (deceive) who could make anybody believe virtually anything.
- This piece of music \_\_\_\_\_ (capsule) such a range of emotions in just four minutes.

- 3 Complete sentences a–c with the same word.

- I stopped talking so fast because I could see he wasn't \_\_\_\_\_ my train of thought.
  - I'm good at coming up with ideas, but I'm useless at \_\_\_\_\_ through with them.
  - Can you explain that again? I'm not quite \_\_\_\_\_ here.
- Please wait here for now, then at a given \_\_\_\_\_ I'll announce your arrival and you can come in.
  - By the \_\_\_\_\_ we got to the conference, everyone else had left.
  - There are lots of paintings, but it's well worth taking the \_\_\_\_\_ to study each one.
- I never used to like modern art, but that exhibition really made me \_\_\_\_\_ twice.
  - It's a very fast-moving game, so you really need to \_\_\_\_\_ on your feet.
  - She's quiet during meetings because she doesn't like to \_\_\_\_\_ out loud.
- Am I right \_\_\_\_\_ thinking this is your first time in an art gallery?
  - The book is \_\_\_\_\_ the public domain, so you're free to use it however you wish.
  - Your novel is rather long. \_\_\_\_\_ other words, you need to shorten it substantially.
- Let me \_\_\_\_\_ this straight. Are you saying you want to leave school to become an artist?
  - Where did you \_\_\_\_\_ the inspiration for these amazing designs?
  - I hate it when my bosses \_\_\_\_\_ all the credit for my hard work!
- Whenever I get stuck for \_\_\_\_\_, I find a walk in the forest is great for sparking my creativity.
  - The purpose of this brainstorming session is to trigger new \_\_\_\_\_ for our next advertising campaign.
  - These are all good \_\_\_\_\_, but you need to flesh them out with more detail.

- 4 Complete the sentences with the correct forms of the words in brackets. Add any other necessary words. Write up to four words in each gap.

- I'm feeling nervous. Not since I was a child \_\_\_\_\_ (I / dance) in front of an audience.
- Hurry up! \_\_\_\_\_ (here / come / we) bus now!
- If \_\_\_\_\_ (I / hear / correct), you're telling me I need to start over, right?
- When we bought this painting, \_\_\_\_\_ (little / know) that it was a valuable antique worth £50,000!
- After they had planned the outline of the story, everything else \_\_\_\_\_ (fall / place).



### So, you want to be the next C-BooL?

- 1 When a friend shared a beautiful piece of music she'd composed recently, I was keen to find out how she'd done it. When she told me it had been done using the Roland GO:KEYS keyboard, I knew I had to try it.
- 2 Not only is GO:KEYS a simple keyboard with over five hundred sounds to choose from, but it's also an impressive tool to produce music. People like me, who are no experts in music production, might find the number of options rather overwhelming at first, but as I discovered, you can pick up the basics in just a few minutes. What I liked best was the Loop Mix function, which allows you to create amazing music with little or no experience. What's more, the performance pads allow you to change the sound of your songs easily. Another big plus is the price tag, which is significantly lower than other keyboards of a similar standard.
- 3 The keyboard may be compact and easy to carry around, but what is frustrating is that it requires six batteries to power it and doesn't have its own rechargeable battery. I was also a little disappointed by its appearance. The red plastic makes it look cheap and easily breakable. Despite appearances, however, it's actually surprisingly sturdy.
- 4 Overall, this is a great keyboard for anyone wanting to make their own music. Although the best producers, like C-BooL, probably use more professional equipment, I'd certainly recommend it to beginners like me, and I'm sure most people would enjoy using it.

#### 1 Read the review and choose the best summary.

- a A fantastic keyboard for professionals to add special effects to their music.
- b A fun and user-friendly compact keyboard for anyone who wants to start writing songs.
- c A basic keyboard for those with some technical ability.

#### 2 Underline examples of the following in the review.

- 1 Positive opinion adjectives
- 2 Negative opinion adjectives
- 3 Paragraph 1: Key details (What is the review about?)
- 4 Paragraph 2: Main features (What does the keyboard include?)
- 5 Paragraph 2: Two phrases for introducing advantages
- 6 Paragraph 3: Two phrases for introducing disadvantages
- 7 Paragraph 4: Two phrases for introducing a conclusion/recommendation

#### 3 Put the words in the correct order to make emphatic sentences.

- 1 What / appreciate / the detailed / is / will / beginners / instruction screen.  
\_\_\_\_\_
- 2 What / was / surprised / the most / me / the / price tag.  
\_\_\_\_\_
- 3 What / the range / liked / particularly / was / I / of / sound effects.  
\_\_\_\_\_
- 4 What / the / more / drop-down / needs / are / thought / menus.  
\_\_\_\_\_

#### 4 Complete the sentences with the adjectives from page 16 of the Student's Book. Some letters are given.

- 1 I loved the art on show at the gallery, which was truly o\_\_\_\_\_g.
- 2 The plot was a little f\_\_\_\_\_f\_\_\_\_\_d, which made it hard to take the film too seriously.
- 3 The chef has a reputation for using i\_\_\_\_\_e techniques to create i\_\_\_\_\_e dishes, some of which take hours of intense work to prepare.
- 4 The script was written by a critically a\_\_\_\_\_d author, who has won many awards for her work.
- 5 The number of characters in the story was rather o\_\_\_\_\_g, so it was hard to keep track of who had done what.
- 6 The acting is s\_\_\_\_\_b, especially from the younger cast members, who gave an absolutely p\_\_\_\_\_l performance.
- 7 The instruction manual was written in such i\_\_\_\_\_e language that it was impossible to work out what to do.
- 8 The software is easy to use, which should make it a\_\_\_\_\_g to people without previous experience.

#### 5 Write a review of an electronic gadget or piece of equipment you have used.



## VOCABULARY

## 1 Match 1-8 to a-h to make collocations.

- |            |       |                                |
|------------|-------|--------------------------------|
| 1 infringe | _____ | a somebody think twice         |
| 2 get      | _____ | b your sources                 |
| 3 make     | _____ | c copyright                    |
| 4 consider | _____ | d a conclusion                 |
| 5 cite     | _____ | e inspiration (from something) |
| 6 capture  | _____ | f your intuition               |
| 7 draw     | _____ | g all the alternatives         |
| 8 use      | _____ | h people's imagination         |

## 2 Put the words into the correct gaps.

- I need a lot of time to plan, so I'm not good at thinking on my **heartstrings** \_\_\_\_\_.
- The plot is rather intricate, but in a **train** \_\_\_\_\_ it involves travelling back in time.
- I tried to think of something funny to say, but my mind went **straight** \_\_\_\_\_.
- The story is over two hundred years old, so it's in the public **box** \_\_\_\_\_ now.
- He's an excellent artist, which gives him a competitive **flash** \_\_\_\_\_ in the world of design.
- I've always wanted to ... er ... sorry, I've completely lost my **feet** \_\_\_\_\_ of thought.
- The haunting music is carefully crafted to pull at the audience's **edge** \_\_\_\_\_.
- Let me get this **blank** \_\_\_\_\_. Are you saying I've bought a fake?
- While I was drifting off to sleep, I had a sudden **domain** \_\_\_\_\_ of inspiration.
- She's good at following instructions, but she finds it hard to think outside the **nutshell** \_\_\_\_\_.

## GRAMMAR

## 3 Put the words in the correct order.

- anybody / this box / should / Under / open / no circumstances  
\_\_\_\_\_
- wonder / had / nobody else / been / I / laughing / why / did  
\_\_\_\_\_
- to help / has / no point / offered / At / me / anybody  
\_\_\_\_\_
- dark emotions / it encapsulates / I love / What / about / so many / is / this painting / the way  
\_\_\_\_\_
- enjoying / half an hour / I'd / comedy performance / for / been / the  
\_\_\_\_\_

## 4 Complete the mini-dialogues with sentences a-e from exercise 3.

- X: \_\_\_\_\_  
Y: Er, you're looking at a stain on the wall. The painting is behind you.
- X: I've been waiting here for my eye test for twenty minutes. \_\_\_\_\_  
Y: That's because you're in an art gallery. The optician's is next door.
- X: \_\_\_\_\_  
Y: Why not? Does it contain toxic chemicals?  
X: No. It's my lunchbox.
- \_\_\_\_\_ when the theatre attendant came up to me. 'You do realise the performance hasn't actually started yet, don't you?' she said. It turned out I'd been watching the caterers getting the buffet lunch ready. Well ... \_\_\_\_\_

## ROUND-UP 1 2 3 4 5 6 7 8

## 5 Complete the dialogue with one word in each gap.

- Max Did you manage to read my poetry collection?  
Ava Yes. Er, thanks a lot for sharing something so personal with me.
- Max They're extremely personal. Never before <sup>1</sup> \_\_\_\_\_ I allowed anybody else to read them. And? Did you like them? Were they funny?  
Ava Funny? I didn't realise they were supposed to be funny. I <sup>2</sup> \_\_\_\_\_ find them quite powerful, though. They were rather, er, intricate, and after I'd <sup>3</sup> \_\_\_\_\_ reading for about eight hours I was tempted to give up. But I managed to stick <sup>4</sup> \_\_\_\_\_ them to the end. <sup>5</sup> \_\_\_\_\_ the time I'd finished, I was quite, er, overwhelmed.
- Max With emotion?  
Ava Er ... something like that. No sooner had I got to the end <sup>6</sup> \_\_\_\_\_ I felt a powerful urge to scream.
- Max Wow! That's wonderful! So, do you think I should publish them?  
Ava Hmm. <sup>7</sup> \_\_\_\_\_ I think you should do is choose the best three or four ... and shorten them.
- Max And what about the others? Am I right <sup>8</sup> \_\_\_\_\_ thinking I should scrap them?  
Ava Not necessarily. What it boils <sup>9</sup> \_\_\_\_\_ to is that I'm perhaps not the best person to appreciate your, er, unique talent.
- Max Aha. I'm <sup>10</sup> \_\_\_\_\_ you now. Thanks a lot!





## LISTENING

1 02 Usłyszysz cztery wypowiedzi na temat wynalazków. Do każdej wypowiedzi 1–4 dopasuj zdanie A–E. Jedno zdanie zostało podane dodatkowo.

- |  |                 |
|--|-----------------|
| A The speaker got the idea from a child.           | Speaker 1 _____ |
| B The idea seemed too simple to take seriously.    | Speaker 2 _____ |
| C Someone else took credit for the speaker's work. | Speaker 3 _____ |
| D The speaker was unable to take out a patent.     | Speaker 4 _____ |
| E It took a long time to come up with the idea.    |                 |

## READING

2 Przeczytaj tekst. W każdą lukę wpisz literę, którą oznaczono brakujące zdanie A–F. Jedno zdanie zostało podane dodatkowo.

- A After they had been living there for a few years, Christo and Jeanne-Claude's work began to receive more exposure, which enabled them to be more ambitious.
- B But this changed, and by the time of Jeanne-Claude's death in 2009, both their names had earned the recognition they rightly deserved.
- C Their best-known works include large-scale site-specific art installations, especially those that involved wrapping famous buildings, such as the Reichstag in Berlin and the Arc de Triomphe in Paris, in white fabric.
- D They also claimed there was no deep meaning to their projects.
- E In fact, towards the end of their career, they always travelled in separate planes, in order that if one was involved in a crash, the other would be able to continue their work.
- F These projects involved a great deal of planning and negotiation, to come up with technical solutions, obtain permits and environmental approval, and persuade members of the public that their work was important.

## The extraordinary art of Christo and Jeanne-Claude

Christo Vladimirov Javacheff and Jeanne-Claude Denat de Guillebon were two of the most influential and innovative artists of the twentieth and early twenty-first centuries. <sup>1</sup> \_\_\_\_\_ Because these projects were so visible and controversial, everyone in those cities and far beyond had an opinion about the artists.

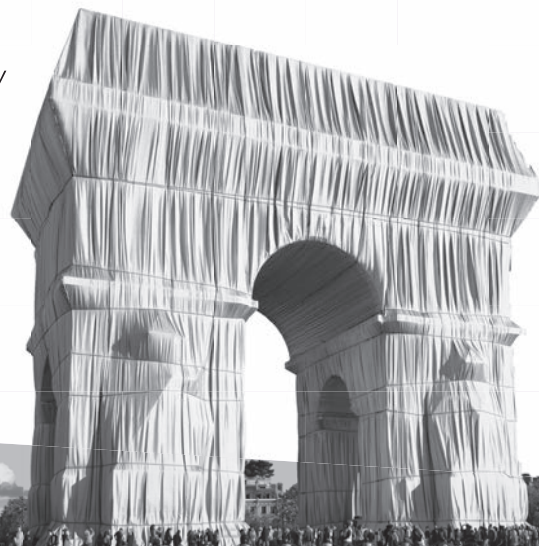
They met in Paris in 1958 after Christo had agreed to paint Jeanne-Claude's mother's portrait, and they got married the following year. Christo had worked as an artist for some years before they met, but once they began working together, they became more inspired.

In 1964, they moved to New York. <sup>2</sup> \_\_\_\_\_ In 1968, they began to wrap large structures in fabric. Although these projects took a huge amount of time to complete, they would only last for a few days or weeks once finished.

By the early 1970s, the pair had wrapped seven large structures in fabric, including a 2.5-kilometre stretch of the Australian coastline and a valley in the Rocky Mountains, USA. <sup>3</sup> \_\_\_\_\_ They also funded the projects exclusively from their own pockets, rather than accepting any money from sponsors.

The pair explained that these complex processes were an integral part of the artwork. <sup>4</sup> \_\_\_\_\_ They were simply a way of showing something familiar in a new light, and to create joy and beauty in the process.

Until the 1990s, these works were always created in the name of Christo alone, because years earlier they had decided that a man's name had more chance of success in the art world. <sup>5</sup> \_\_\_\_\_ Christo continued to plan and execute large-scale projects until his own death in 2020.







## USE OF ENGLISH

- 3 Uzupełnij każdą lukę jednym wyrazem, przekształcając wyraz podany w nawiasie.



Józef Hofmann

Józef Hofmann was a Polish-American musician and composer, born in Kraków in 1876. By the age of ten, he had already given a(n) <sup>1</sup> \_\_\_\_\_ (critic) acclaimed piano recital in Warsaw, performed throughout Europe and been described as a child genius. In the early twentieth century, he was regarded as one of the most <sup>2</sup> \_\_\_\_\_ (stand) pianists of his era. As a composer, he published over 100 works including piano concertos and ballet music.

Alongside his musical genius, he was also a prolific inventor, with over seventy patents to his name, including pneumatic shock absorbers for cars and planes, windscreen wipers (inspired by the movement of a musical metronome), and even a house that revolved with the sun. It has also been claimed that he invented the humble paper clip, taking his <sup>3</sup> \_\_\_\_\_ (inspire) from the shape of a musical treble clef. This claim seems a little <sup>4</sup> \_\_\_\_\_ (fetch), given that paper clips had almost certainly been in production for several years before Hofmann's birth.

- 4 Uzupełnij drugie zdanie tak, aby oddać sens zdania wyjściowego. Użyj podanego wyrazu. W każdą lukę możesz wpisać maksymalnie cztery wyrazy.

- 1 Somebody asked me to write a play immediately after I finished writing my novel. SOONER  
\_\_\_\_\_ written my novel than I was asked to write a play.
- 2 I spent six hours practising the piano, and I was absolutely exhausted by the end. BEEN  
I was absolutely exhausted because \_\_\_\_\_ the piano for six hours.
- 3 I was surprised by the unexpected twist at the end of the film. ME  
What \_\_\_\_\_ the way the film had an unexpected twist at the end.
- 4 There were too many people, and I couldn't find anywhere to sit. ONLY  
\_\_\_\_\_ too many people, but there was also nowhere to sit.

- 5 Przetłumacz fragmenty zdań na język angielski. W każdą lukę możesz wpisać maksymalnie cztery wyrazy.

- 1 When we finally found the cabin, we \_\_\_\_\_ (chodziliśmy) for hours.
- 2 The advert needs to pull at the viewers' heartstrings and \_\_\_\_\_ (zadzielać im na wyobraźnię).
- 3 She has the talent, but she needs more practice. \_\_\_\_\_ (Innymi słowy), she's not ready yet.
- 4 We got there much later than expected. \_\_\_\_\_ (Ledwo dotarliśmy) when it was already time to leave.

## WRITING

- 6 Przeczytaj polecenie i wykonaj zadanie.

Uczestniczyłeś/Uczestniczyłaś niedawno w popularnym festiwalu muzycznym. Wydarzenie było satysfakcjonujące od strony artystycznej, jednak zauważyłeś/zauważyłaś pewne niedociągnięcia organizacyjne. Napisz artykuł na 200–250 słów, w którym zrecenzujesz festiwal i zaproponujesz, jak poprawić jego organizację w przyszłości.



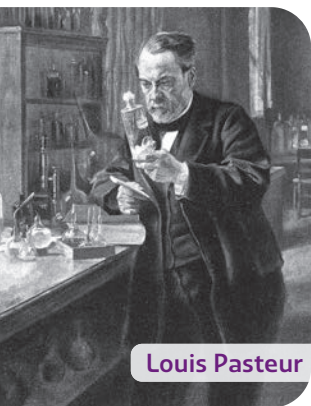


## Vocabulary 1

### Scientific research

- 1 Complete the text with the correct forms of the verbs from the box.

carry collect do draw follow keep make



Louis Pasteur

#### The science of lucky breaks

A common misconception is that great scientists need an extraordinary amount of luck in order to <sup>1</sup> \_\_\_\_\_ groundbreaking discoveries. While luck certainly plays a part, it is much more important to be persistent while <sup>2</sup> \_\_\_\_\_ out scientific research by <sup>3</sup> \_\_\_\_\_ experiments again and again for months or even years. It also means being obsessively systematic by <sup>4</sup> \_\_\_\_\_ instructions

to the letter and <sup>5</sup> \_\_\_\_\_ incredibly detailed written records of everything you do. You need to <sup>6</sup> \_\_\_\_\_ and evaluate a huge amount of evidence. 99.9% of the time, the only conclusion to be <sup>7</sup> \_\_\_\_\_ from your experiment is that you need to do it again, but in a slightly different way. But it's all worth it when the other 0.1% succeeds and you make your lucky breakthrough. As Louis Pasteur said, 'Chance favours only the prepared mind.'

- 2 Choose the correct options.

- This method doesn't seem to be working. We are going to have to *analyse* / *adopt* a different approach.
- Applying for a new passport is a very basic *sample* / *procedure*, and it shouldn't take long.
- If you *scrutinise* / *conduct* people carefully, you will be able to see how they change over time.
- Your test result *demonstrates* / *processes* the possibility that you may pass the exam.
- Did you take the time and effort to *execute* / *collate* evidence to support your claims?

- 3 Match the sentence halves.

- The project involved global \_\_\_\_\_
- This supercomputer is currently processing \_\_\_\_\_
- Proper trials are needed to deem \_\_\_\_\_
- Our experts come from a range of fields \_\_\_\_\_
- The team has made a major \_\_\_\_\_
- Our evidence is collated from diverse \_\_\_\_\_
- For me as a scientist, the greatest obstacle \_\_\_\_\_
- We are currently conducting \_\_\_\_\_

- 4 Complete the sentences with one word in each gap.

- What are the \_\_\_\_\_ effects of this drug?
- They're asking for twins and triplets to be guinea \_\_\_\_\_ in their research into hereditary diseases.
- The job of a sound engineer sounds quite complicated, but it's hardly \_\_\_\_\_ science, is it?
- We made the discovery through a process of trial and \_\_\_\_\_. We didn't really have a plan.
- The AI technology they're working on is light \_\_\_\_\_ ahead of what's happening in our lab.
- The discovery of penicillin and antibiotics represented a quantum \_\_\_\_\_ for the world of medicine.

- 5\* Complete the table with the correct irregular plural forms of these scientific words.

	Singular	Plural
-a → -ae	antenna* formula*	1 _____ 2 _____
-ex / -ix → -ices	appendix* index*	3 _____ 4 _____
-is → -es	analysis axis crisis diagnosis hypothesis thesis	5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____
-on → -a	criterion** phenomenon	11 _____ 12 _____
-um → -a	bacterium** datum** medium** millennium*	13 _____ 14 _____ 15 _____ 16 _____
-us → -i	cactus* stimulus	17 _____ 18 _____

\* Regular plurals (e.g. *antennas*) are also possible, but only in informal/non-scientific contexts.

\*\* These forms are rare in everyday English. *Data* can be used as an uncountable noun or a plural (e.g. *The data is/are wrong*).

- sources, including interviews and experiments.
- collaboration between universities.
- to overcome is a lack of financial resources.
- the drug safe for long-term use.
- a massive amount of data to identify patterns.
- research into the effects of sunlight on allergies.
- of study, including archaeology and geology.
- breakthrough in the fight against malaria.



▶VIDEO 05

**1 Choose the correct options.**

- 1 You *mustn't* / *needn't* enter the laboratory without a member of staff.
- 2 You *can't* / *don't need to* go to all the lectures. You can choose three out of five to attend.
- 3 You really *might* / *ought to* report the theft to the police. They need to know about it.
- 4 A good degree *can* / *must* help you get a well-paid job with plenty of opportunities to progress.
- 5 Do you think I *may* / *should* see a doctor about my headaches? I'm not sure.

**2 Complete the sentences with the modal verbs from the box and the correct forms of the verbs in brackets. There may be more than one correct answer.**

can't   might   must   mustn't   need to   shouldn't

- 1 \_\_\_\_\_ I \_\_\_\_\_ (buy) any milk, or have we got some in the fridge?
- 2 It's a library, so you \_\_\_\_\_ (talk) loudly or use your mobile phone.
- 3 Linda has been revising for her exams all weekend. She \_\_\_\_\_ (be) really tired.
- 4 Toby lived in France for a year, but surprisingly he \_\_\_\_\_ (speak) much French.
- 5 You \_\_\_\_\_ (eat) too many sweets because they are bad for your teeth.
- 6 I'm not certain, but that \_\_\_\_\_ (be) an asteroid. What do you think?

**3 Complete the text with one word in each gap. Some letters are given.**

A team of Polish researchers have been awarded a prestigious Ig Nobel Prize in biology for their research into magnetism in cockroaches, after they <sup>1</sup> s\_\_\_\_\_d in proving that dead magnetised cockroaches behave slightly differently from living magnetised cockroaches. I'm <sup>2</sup> s\_\_\_\_\_ you're wondering why anybody would want to magnetise cockroaches in the first place – and indeed this is the whole point of the Ig Nobel Prize.

It is <sup>3</sup> s\_\_\_\_\_d to celebrate 'achievements that first make people laugh, and then make them think'. In this case, the discovery reveals something about the vital role played by magnetism in the lives of cockroaches and other insects, and it's quite <sup>4</sup> p\_\_\_\_\_e that this knowledge will be useful to humans in the future.

**4 Complete the second sentence with up to four words so that it means the same as the first one. Use the word in capitals.**

- 1 When I was at university, we weren't allowed to use a computer without asking permission. **NECESSARY**  
During my studies, it \_\_\_\_\_ us to ask permission before using a computer.
- 2 I recommend that you re-analyse the evidence, but it's up to you. **TO**  
I think you \_\_\_\_\_ the evidence again, but it's your decision.
- 3 I'm sure this phenomenon has a rational explanation. **BOUND**  
There \_\_\_\_\_ a rational explanation for this phenomenon.
- 4 You must not tell anybody about our experiments. **FORBIDDEN**  
You \_\_\_\_\_ about our experiments to anybody.
- 5 You're not obliged to wear a white coat in the lab, but you can if you like. **NEED**  
You can wear a white coat in the lab if you like, but there \_\_\_\_\_ wear one.
- 6 The machine might overheat – it often does. **PRONE**  
The machine \_\_\_\_\_.
- 7 Nobody told the participants of the experiment what to do. **MEANT**  
The participants weren't told what \_\_\_\_\_ do during the experiment.

The 2019 Ig Nobel Prize for chemistry went to a Japanese team who, thirty-five years before, had <sup>5</sup> m\_\_\_\_\_d to measure the amount of saliva produced daily by an average five-year-old. To obtain this result, several of the researchers' own children were <sup>6</sup> r\_\_\_\_\_d to spit into measuring cups throughout the day, and were <sup>7</sup> f\_\_\_\_\_n to swallow any of the saliva they had produced.

You may think it's <sup>8</sup> u\_\_\_\_\_y for anybody to measure a child's saliva production (and in case you're wondering, it's half a litre), but again, it's <sup>9</sup> l\_\_\_\_\_y that this knowledge will come in useful at some point in the future. As for the researchers' long-suffering children, they are now forty years old, and were invited to attend the ceremony and even <sup>10</sup> a\_\_\_\_\_d to pick up the award on behalf of their parents.



# 2.3 Speaking

## Agreeing and disagreeing

**1** Read the conversation. Ignore gaps 1–11 for now. Which statements do both speakers agree with?

- a Modern teenagers are lazy.
- b Mobile phones are bad for sleep patterns.
- c It would be good for teenagers to start school later each day.

**Dell** Teenagers today are so lazy! They play on their phones all night and then they can't wake up in the morning.

**Sid** I'm afraid I would have to <sup>1</sup> \_\_\_\_\_ with you on that. It's not about laziness. It's biology. Our body clock shifts by about two hours during teenage years, so it's normal for us to go to sleep later and wake up later, too.

**Dell** You really <sup>2</sup> \_\_\_\_\_ so? Sounds like an excuse to me.

**Sid** I'm sorry, I just don't <sup>3</sup> \_\_\_\_\_ with you here. There's been a lot of scientific research into teenage sleep patterns. It's all about a hormone called melatonin.

**Dell** <sup>4</sup> \_\_\_\_\_? I'd say it's much more likely to be about mobile phone use at night.

**Sid** You're <sup>5</sup> \_\_\_\_\_, of course, that mobile phones are the enemy of a good night's sleep, but that applies to everyone, not just teenagers. We all need to learn to use them less, especially at bedtime.

**Dell** I'm totally <sup>6</sup> \_\_\_\_\_ you on that! Good quality sleep is far more important than checking your social media at 2 am!

**Sid** <sup>7</sup> \_\_\_\_\_! But it's not just about encouraging teenagers to go to sleep earlier. We also need to restructure their day, to fit in with their need to get up later.

**Dell** Hmm. You've got a(n) <sup>8</sup> \_\_\_\_\_, though I don't see how that would work in practice. You can't change the school timetable so it starts at midday!

**Sid** I know that's <sup>9</sup> \_\_\_\_\_, but even a little change can make a huge difference. There was an experiment in the USA where they shifted the school day back by one hour, and the positive impact on attendance, grades and moods was incredible. We could definitely try something like that here, too.

**Dell** I guess you're right, <sup>10</sup> \_\_\_\_\_ it would still face a lot of resistance.

**Sid** You can <sup>11</sup> \_\_\_\_\_ that again!

**2** Complete the conversation in exercise 1 with the words from the box.

absolutely agree disagree point right say  
seriously think though true with

**3** Put the words in the correct order to make phrases for agreeing and disagreeing.

1 right / got / you've / that

\_\_\_\_\_

2 completely / cannot / afraid / I'm / agree / I

\_\_\_\_\_

3 not / you're / there / wrong / definitely

\_\_\_\_\_

4 think / don't / for / sorry / it's / me / I

\_\_\_\_\_

5 to / you / agree / got / with / I've

\_\_\_\_\_

6 don't / I / right / it's / sorry / just / think / but

\_\_\_\_\_

**4** Complete the sentences with the correct forms of the words in brackets. Add any other necessary words.

1 Some people believe science is the answer to all our problems, but \_\_\_\_\_ (afraid / not) so sure.

2 When you say we should replace sports with science at school, I agree \_\_\_\_\_ (so / far) there should be more science, but I don't agree with cutting sports.

3 Will technology reduce the need for language learning? \_\_\_\_\_ (quite / contrary). I think it will make it far more important.

4 The professor believes we should spend more time on practical applications, not just theory, and I must say I \_\_\_\_\_ (not / agree / more) with her argument.





# Right under our noses



**1** Modern science has an extremely good understanding of three of our five senses: sight, sound and touch. In fact, sophisticated cameras, microphones and sensors allow us to go well beyond the capabilities of the human eye, ear and skin, enabling us to see, hear and feel things that would otherwise be completely imperceptible. But when it comes to our other two senses, smell and taste, technology seems to be lagging far behind. These two senses are closely related – in fact, it is often claimed that 75–95 percent of what we ‘taste’ is actually detected by our noses (although there seems to be little scientific evidence to back up such precise numbers).

**2** While we have very different sensory cells (called receptors) on our tongues and in our noses, both systems work in a similar way. Put simply, when a particular type of molecule from the air or our food connects with one of these receptors, it sends a signal to our brains. Our brains analyse thousands or millions of those signals simultaneously, and interpret their combinations as specific odours or tastes. Unlike our sense of sight, which involves just a handful of different types of receptor, our noses contain around four hundred receptor types, whose precise functions we’re still largely in the dark about. Those four hundred can combine in an almost infinite number of ways – and that’s before we even start thinking about the receptors on our tongues.

**3** This level of complexity explains why, in the mid-twenty-first century, we’re still using dogs and not robots to detect smells that human noses can’t detect. Dogs have been trained to sniff out all kinds of things, from bombs and narcotics to people trapped under collapsed buildings. Medical researchers are also increasingly turning to dogs’ heightened sense of smell to identify diseases, from cancer to Covid, based on the distinctive smells they emit. This quick and easy way of spotting diseases has already saved many lives, and will surely save countless more. But dogs are expensive to train and look after. Surely it would be possible to build a robot to do the same task, wouldn’t it?

**4** In fact, scientists can already build tiny robotic receptors to detect specific molecules in the air. The problem is that there are billions of different molecules floating around us, which means even the most powerful computers can quickly become overwhelmed with too much information. However, advances in artificial intelligence (AI) are finally allowing us to make sense of all this data. Instead of researchers telling the computers what to look for, AI-powered computers train themselves to detect and interpret patterns in the data. Perhaps one day soon, AI-powered smartphones will include a sense of smell, which will be able to detect debilitating illnesses long before we’re aware of them (as well as more mundane information, such as when we ought to take a shower). Whether we’ll want to receive such information from our phones is another matter entirely.

**1** Read the article and choose the best summary.

- a Modern technology can improve on our five senses.
- b Building machines that can smell and taste is a huge challenge.
- c A dog’s sense of smell is superior to both a human’s and machine’s.

**2** Match parts of the text 1–4 to questions A–E. One of the parts of the text matches two questions.

In which paragraph does the author ...

- A summarise how a biological process works? \_\_\_\_\_
- B introduce a high-tech approach to solving a challenge? \_\_\_\_\_
- C make a confident prediction? \_\_\_\_\_
- D question the accuracy of a common assertion? \_\_\_\_\_
- E express surprise about the limitations of technology? \_\_\_\_\_

**3** Read the article again and answer the questions.

**1** In what way is technology ‘lagging behind’ in terms of smell and taste?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**2** How do our brains create the impression of specific smells and tastes?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**3** What advantages and disadvantages of sniffer dogs are mentioned?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**4** What does the writer suggest about possible advances in smartphone technology?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**5** What is the writer’s overall opinion about getting machines to identify smells?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# 2.5 Vocabulary 2

## The universe

### 1 Put the letters in the correct order to complete the sentences.

- 1 An exoplanet is a(n) **ntaelp** \_\_\_\_\_ that is outside our own **aosrl ytesms** \_\_\_\_\_.
- 2 The Artemis program is a(n) **cespa osnimis** \_\_\_\_\_ which aims to take **utsasonrat** \_\_\_\_\_ to the moon for the first time since 1972.
- 3 Edmond Halley was a(n) **tronmaeos** \_\_\_\_\_ who used his own observations of a(n) **motec** \_\_\_\_\_ in 1682 to calculate that it would return in 1758. The icy body was named in Halley's honour upon its punctual return.
- 4 Andromeda is the nearest large **ayalgx** \_\_\_\_\_ to our own, the Milky Way. It forms part of the Andromeda **iolecnnltaost** \_\_\_\_\_, which the Ancient Greeks named after the mythical Princess Andromeda. You'll need a(n) **esepitcoe** \_\_\_\_\_ to see its distinctive spiral shape.

### 2 Match the words from box A to the words from box B to make phrases. Use the phrases to complete sentences 1–8.

A **black infrared insatiable interstellar northern observable outer shooting**


B **clouds curiosity hole light lights space star universe**

- 1 The sky's clear tonight, so you might see a(n) \_\_\_\_\_. If you do, don't forget to make a wish!
- 2 \_\_\_\_\_ is invisible to the human eye, but can be detected by night-vision cameras.
- 3 I became an astrophysicist not because I wanted to solve specific problems, but simply because of my \_\_\_\_\_ to understand how the universe works.
- 4 The highlight of our trip to Iceland was when we saw the colourful \_\_\_\_\_!
- 5 There's no point looking for a(n) \_\_\_\_\_ with your telescope! No light can escape from them, so they're completely invisible!
- 6 Until recently, \_\_\_\_\_, the slightly denser patches of space between stars were believed to consist only of simple atoms. So scientists were stunned to discover complex organic molecules deep inside them.
- 7 The \_\_\_\_\_ has a radius of 46.508 billion light years, but it's amazing to think there may be so much more beyond that point.
- 8 There's no obvious way of determining where our Earth's atmosphere ends and \_\_\_\_\_ begins, but most international treaties use the Kármán line for this purpose.

### 3 Complete the text with the correct forms of the words from the box. There is one extra word.

asteroid atmosphere cosmos eclipse meteorite orbit piece

When we think of our Solar System, we tend to forget the huge number of rocky <sup>1</sup> \_\_\_\_\_ that <sup>2</sup> \_\_\_\_\_ the Sun. These range from a metre to almost 1,000 kilometres in diameter. There are also countless meteoroids, which are similar but much smaller. When these meteoroids enter our Earth's <sup>3</sup> \_\_\_\_\_, they burn brightly, and we call them meteors, or shooting stars. They are usually destroyed during this journey, but from time to time, fragments called <sup>4</sup> \_\_\_\_\_ make it all the way to the Earth's surface. These visitors from distant parts of the <sup>5</sup> \_\_\_\_\_ are immensely valuable to scientists, as they enable them to <sup>6</sup> \_\_\_\_\_ together the secrets of the universe.



### 4 Match words and phrases a–h to definitions 1–8.

- 1 \_\_\_\_\_ – extremely important, new
- 2 \_\_\_\_\_ – the universe when you think of it as a system with order and patterns
- 3 \_\_\_\_\_ – build a story from fragments
- 4 \_\_\_\_\_ – inquisitiveness difficult to satisfy
- 5 \_\_\_\_\_ – type of invisible light that can feel warm
- 6 \_\_\_\_\_ – an accumulation of gas, plasma and dust
- 7 \_\_\_\_\_ – when a number of individuals contribute their expertise to a group
- 8 \_\_\_\_\_ – a ball-shaped region of the universe comprising all matter that can be seen from Earth or its space-based telescopes

- |                        |                       |
|------------------------|-----------------------|
| a collective knowledge | e interstellar cloud  |
| b groundbreaking       | f observable universe |
| c infrared light       | g piece together      |
| d insatiable curiosity | h the cosmos          |

### 5★ Complete the text with the correct words formed from the words in brackets.

#### The wisdom (and foolishness) of crowds

As individuals, we are all hopeless at making predictions. When researchers <sup>1</sup> \_\_\_\_\_ (**analysis**) these predictions using a(n) <sup>2</sup> \_\_\_\_\_ (**proceed**) that involves recording people's predictions and then checking them months or even years later, the results are uniformly terrible. However, according to recent <sup>3</sup> \_\_\_\_\_ (**ground**) research, there is one way of making remarkably good predictions: ask a huge number of people and take an average. It seems that individuals base their predictions on just one or two factors, while our <sup>4</sup> \_\_\_\_\_ (**collect**) knowledge is based on a far broader <sup>5</sup> \_\_\_\_\_ (**vary**) of sources, which makes it far more accurate.



*A lecture on modern surgery*

**1 Complete the sentences with the correct particles.**

- If you look \_\_\_\_\_ the results, you'll see that cows with names produce more milk.
- You can't rely \_\_\_\_\_ Miguel. He never seems to do what he says.
- You'll need to plug \_\_\_\_\_ the USB cable to the back of the laptop to transfer the data over.
- If that's not clear, we can go \_\_\_\_\_ the instructions once more.
- There is always a lot of information to take \_\_\_\_\_ on the first day of school.
- We have hooked \_\_\_\_\_ our patients to this machine so we can monitor their heart rates.
- The King's visit to the school gave the students the opportunity to show \_\_\_\_\_ their work.
- When you interview the politician, please don't bring \_\_\_\_\_ the allegations of nepotism.
- You definitely take \_\_\_\_\_ your father – you have indistinguishable personalities.
- This cream will take \_\_\_\_\_ the redness, but you may still need to see a doctor.

**2 Replace the underlined words with the correct forms of some of the transitive phrasal verbs from exercise 1.**

- Neither of us wanted to start discussing \_\_\_\_\_ the argument we'd had the week before, so we avoided the subject completely.
- The TV isn't working. Is it connected \_\_\_\_\_ to an electricity supply?
- Who do you look or behave like \_\_\_\_\_ in your family?
- Have you understood and remembered \_\_\_\_\_ everything we've just learnt in class?
- I would like to trust \_\_\_\_\_ Sam to drive us, but he is always late, so we might miss the train!

**3 The words in the box are from a lecture. What do you think the lecture is about?**

biodegrade   blood vessel   cells   implants   limbs  
nutrients   transplants

**4 03 Listen to the lecture and choose the best summary.**

- Bioprinting uses 3-D printers to produce body parts out of plastic that can be used to replace damaged limbs or organs.
- Bioprinting uses 3-D printers to produce body parts using a patient's own cells and is currently being used in hospitals around the world.
- Bioprinting uses 3-D printers to produce body parts using a patient's own cells. Scientists hope it will transform transplants and medical research in the future.

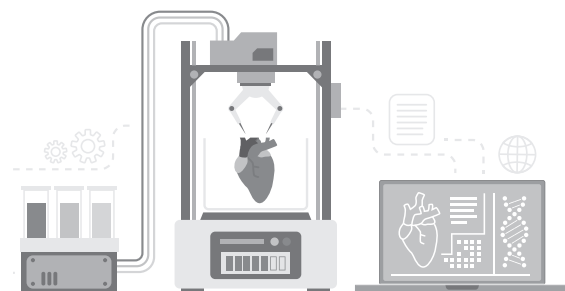
**5 03 Listen again and complete the sentences with a word or short phrase.**

- After seeing what 3-D printers could do, scientists wanted to apply the technology to help them print human \_\_\_\_\_.
- At first, scientists found it difficult to keep living cells alive because they needed \_\_\_\_\_.
- To solve this problem, they printed a tissue that had many \_\_\_\_\_.
- When printed tissue was put into animals, the animals' own cells began to grow into \_\_\_\_\_.
- Printing human organs could mean that patients will no longer need \_\_\_\_\_.
- Scientists think it will be easier to print livers and kidneys than \_\_\_\_\_.
- Using bioprinted human tissue makes it less necessary to use animals during \_\_\_\_\_.
- An American company has managed to print skin cells directly onto a patient's \_\_\_\_\_.

**6 Complete the extracts from the lecture with the correct forms of the verbs from the box.**

extend   focus   have   keep   limit   perfect  
print   run   reject   save   see (x2)

- ... plug in your 3-D printer and \_\_\_\_\_ an exact replica at home.
- Doctors and scientists soon began to \_\_\_\_\_ the potential of this new technology ...
- ... certain plastics designed to help the structure \_\_\_\_\_ its shape.
- However, they \_\_\_\_\_ into difficulties when they tried to ...
- So, scientists \_\_\_\_\_ their attention on developing a tissue that would ...
- ... transplants, ... which their bodies can sometimes \_\_\_\_\_.
- Using human tissue instead of animal tissue ... \_\_\_\_\_ many advantages.
- Cosmetic companies \_\_\_\_\_ it as the best way to test their products ...
- Once bioprinting techniques have been \_\_\_\_\_, their future uses will be \_\_\_\_\_ only by our imagination.
- They could ... \_\_\_\_\_ or \_\_\_\_\_ millions of lives around the world ...





**1 Put the words in the correct order to make speculations and deductions.**

- They / for / any awards / won't / definitely / that terrible / win / research!  
\_\_\_\_\_
- That / can't / because / strange noise / coming / the 3-D printer / from / it's not / be / plugged in.  
\_\_\_\_\_
- I / salt / may / a little / have / added / too much / by mistake.  
\_\_\_\_\_
- Scientists / exoplanets / will / over the next / find / probably / thousands more / few years.  
\_\_\_\_\_
- If / to pay for / have / you're lucky, / might / you / not / a ticket.  
\_\_\_\_\_
- You / be / expect / joking / me to write / if you / your thesis / must / for you.  
\_\_\_\_\_

**2 Complete the text with the correct forms of the verbs in brackets.**

### Recognising women in science

Scientists can say they have done more for humanity than any other profession with the many amazing stories of discoveries and inventions. Unfortunately, throughout history, science <sup>1</sup> \_\_\_\_\_ (may / not recognise) the contributions female scientists have made to those achievements.



When Francis Crick and James Watson published their groundbreaking article on the discovery of the structure of DNA in 1953, they <sup>2</sup> \_\_\_\_\_ (must / be) aware that they couldn't have done it without the photographic images that the biophysicist Rosalind Franklin had taken the previous year.



Nineteenth-century mathematician Ada Lovelace <sup>3</sup> \_\_\_\_\_ (could / be) frustrated at the lack of recognition she received at the time she collaborated with the inventor of the mechanical computer, Charles Babbage. While translating an article for Babbage, she made a series of notes which some historians believe <sup>4</sup> \_\_\_\_\_ (may / be) the world's first computer program.



When Neil Armstrong first stepped on the moon in 1969, he declared it 'One small step for a man; a giant leap for mankind'. But he <sup>5</sup> \_\_\_\_\_ (might / not realise) that it was also a huge achievement for womankind, including the brilliant NASA mathematician and engineer Katherine Johnson, whose calculations ensured the rocket made it all the way to the moon and back.

**3 Complete the second sentence so that it means the same as the first one. Use the word in capitals.**

- Archie only left home ten minutes ago, so I'm certain he isn't here yet. **ARRIVED**  
Archie \_\_\_\_\_ yet because he only left home ten minutes ago.
- Maybe the experiment will work, but it's also possible that it won't. **OR**  
The experiment \_\_\_\_\_ work.
- I'm sure Filippo broke the window. He was playing football in the garden earlier. **BROKEN**  
Filippo \_\_\_\_\_ because he was playing football in the garden earlier.
- I think it was Mike who sent the flowers to me, but I'm not completely sure. **COULD**  
Mike \_\_\_\_\_ the flowers, but I'm not really sure.
- Congratulations on your results! I'm sure you're delighted! **FEELING**  
Well done! You \_\_\_\_\_ wonderful about your results!
- I'm sure they're planning to publish the article online soon. **DEFINITELY**  
The article \_\_\_\_\_ online soon.
- It's probably Emma's bike outside because she told me she was coming. **LEFT**  
Emma \_\_\_\_\_ outside because she told me she was coming.



**4★ Match the pairs of sentences with the same meaning.**

- |                                |       |
|--------------------------------|-------|
| 1 They're bound to stay.       | _____ |
| 2 They ought to stay.          | _____ |
| 3 There was no need to stay.   | _____ |
| 4 They didn't manage to stay.  | _____ |
| 5 They definitely didn't stay. | _____ |
| 6 They might stay.             | _____ |
| 7 They must have stayed.       | _____ |
| 8 They had to stay.            | _____ |
- 
- |                                    |       |
|------------------------------------|-------|
| a It was unnecessary to stay.      | _____ |
| b They can't have stayed.          | _____ |
| c It's possible that they'll stay. | _____ |
| d They are meant to stay.          | _____ |
| e They were obliged to stay.       | _____ |
| f I'm sure they stayed.            | _____ |
| g They couldn't stay.              | _____ |
| h They'll definitely stay.         | _____ |

**1 Complete the sentences with one word in each gap.**

- 1 Why did you have to bring \_\_\_\_\_ the subject of money? It was so embarrassing!
- 2 When you haven't been sleeping well, you're much more prone \_\_\_\_\_ getting ill.
- 3 I read the academic paper five times, but I'm still completely \_\_\_\_\_ the dark about what it all means.
- 4 I'm afraid I have to disagree with you \_\_\_\_\_ that.
- 5 Marta was showing \_\_\_\_\_ her new phone at school today, but I wasn't too impressed.
- 6 It took about ten months before I finally succeeded \_\_\_\_\_ getting a job.
- 7 I didn't understand the rules. Can you go \_\_\_\_\_ them again, please?
- 8 Yes, absolutely. I'm totally \_\_\_\_\_ you on that.

**2 Complete sentences a-c with the same word.**

- 1 a Their two salaries \_\_\_\_\_ give them quite a nice income.  
b You are supposed to work \_\_\_\_\_ as a group because you get inspiration from each other.  
c Astronomers are still piecing \_\_\_\_\_ a map of what our galaxy looks like.
- 2 a I'm willing to change my opinion if new evidence comes to \_\_\_\_\_.  
b The new technology is \_\_\_\_\_ years ahead of what was available even three years ago.  
c Some snakes have holes in their faces which enable them to see infrared \_\_\_\_\_.
- 3 a She doesn't get her intelligence from her dad, so she must \_\_\_\_\_ after her mother.  
b I got confused because there was too much information to \_\_\_\_\_ in.  
c The doctors couldn't cure his illness, but at least they managed to \_\_\_\_\_ away the pain.
- 4 a That's a really good point. I couldn't \_\_\_\_\_ more.  
b While I \_\_\_\_\_ in so far as the theory is concerned, I'm not convinced it would work in practice.  
c Although I'm not so sure about your methods, I've got to \_\_\_\_\_ with your conclusions.
- 5 a I'd like to make one or two comments if I \_\_\_\_\_.  
b Research shows that we \_\_\_\_\_ not be doing enough to protect our identities online.  
c Laughter \_\_\_\_\_ reduce the damaging effects of stress by lowering the stress hormones.

**3 Complete the text with the correct words formed from the words in the box. There are two extra words.**

able alleviate forbid necessity number observe possible progress remark

**STEPHEN HAWKING**



Professor Stephen Hawking was one of the most <sup>1</sup> \_\_\_\_\_ scientists of modern times. He made his name with groundbreaking research into the nature of black holes. He realised that despite being invisible, black holes should still be <sup>2</sup> \_\_\_\_\_ with the right equipment. Hawking's calculations demonstrated the <sup>3</sup> \_\_\_\_\_ of observing and measuring the emission of particles from the edge of a black hole, which became known as Hawking radiation. Despite initial scepticism of his findings among other scientists, they are now widely accepted. At the age of twenty-one, Hawking was diagnosed with motor neurone disease, a(n) <sup>4</sup> \_\_\_\_\_ disorder that gradually paralysed him, and eventually led to his death in 2018, at the age of seventy-six. At first, he was fiercely independent, and his friends and family were <sup>5</sup> \_\_\_\_\_ to treat him differently, or even to help him. As his condition deteriorated, however, he was forced (extremely reluctantly) to use an electric wheelchair. When he lost the <sup>6</sup> \_\_\_\_\_ to speak, he used an electronic speech synthesizer with a robotic voice, typing out each word slowly and painstakingly with a hand-held switch, and later using a single muscle in one cheek. Despite this, Hawking was a prolific writer, whose credits includes the international best-seller *A Brief History of Time*, several works of children's fiction, and of course, <sup>7</sup> \_\_\_\_\_ important academic papers.





### Should science be used to help us live forever?

Who wants to live forever? It may sound like science fiction, but recent research has led to the astonishing possibility of slowing down or even reversing the aging process by tweaking our genes. So far, the procedure has worked on a handful of mice under extremely controlled conditions, so we are still far from a ready-made elixir of life. But for the first time ever, eternal life is within our grasp. The question is: is this a good thing or not?

On the one hand, nobody wants to die, so to a certain extent researchers should surely try to prolong our lives using whatever methods are available. What is more, the aging process is closely associated with an increase in illnesses and a deterioration in health. If this process could be slowed or reversed, it would save our health services a lot of money, and would remove a great deal of pain and suffering from people's lives.

On the other hand, it is widely accepted that the world is already overpopulated and that one of the main contributory factors is that people are living longer. Therefore, opponents of life-extending research might claim that scientists should instead focus on saving the planet. In addition, it might be argued that our limited lifespans motivate us to make the most of every moment. If we really could live forever, we might simply become lazy and waste the opportunity.

All things considered, medical science must continue to fight disease in order to help people live a long and decent life. Nevertheless, aging is not a disease, so we shouldn't try to beat it by allowing people to live forever, because that may cause more problems than it solves.

#### 1 Read the essay and choose the best summary.

- The writer believes that medical science should be used to fight the ageing process and extend people's lives even though the world is overpopulated.
- The writer believes that everyone has the right to a long and healthy life and that old age should be treated like any other disease.
- The writer argues that science's role is to fight disease but not old age. Instead, it should focus on the world's most serious problems.

#### 2 Read the essay again and find features and devices 1-5.

- A question that the essay sets out to answer  
\_\_\_\_\_
- A phrase to show that an argument is true only up to a point  
\_\_\_\_\_
- A phrase to introduce a general opinion held by many people  
\_\_\_\_\_
- A phrase to introduce a counterargument that some people may make  
\_\_\_\_\_
- A phrase to introduce a summary  
\_\_\_\_\_

#### 3 Complete the sentences with the words from the box.

argumentation balance block favour held legitimacy outstanding plus substantial truth

- There could be an element of \_\_\_\_\_ to the idea that start-ups today require less capital than before to succeed.
- While the potential for economic gain would be a definite \_\_\_\_\_, there are other issues that also need to be considered.
- Having analysed both lines of \_\_\_\_\_, I would argue that we need to find a balance between the two extremes.
- One \_\_\_\_\_ advantage is that the changes could be implemented quickly and cheaply.
- It is generally \_\_\_\_\_ that the role of science is to understand the truth, rather than focus on what is right or wrong.
- A major stumbling \_\_\_\_\_ might be that such a step would require a huge amount of investment.
- Many experts are in \_\_\_\_\_ of making science more accessible to non-academics, while others claim that this could lead to a lowering of standards.
- On \_\_\_\_\_, I believe the advantages outweigh the disadvantages.
- On the one hand, there are \_\_\_\_\_ gains for businesses that can harness the latest technology.
- There is some \_\_\_\_\_ to the idea that scientific research should somehow be regulated by an independent international body.

#### 4 Do the writing task.

Sztuczna inteligencja ma coraz większy wpływ na nasze życie. Przedstaw w formie rozprawki na 200-250 słów zalety i wady wykorzystania tego typu technologii.

**VOCABULARY****1 Choose the correct options.**

- Before the procedure is *deemed* / *conducted* safe, we need to *conduct* / *process* the data.
- What approach was *provided* / *adopted* for this piece of research?
- You can't rely *on* / *in* the accuracy of this evidence.
- Is now a good time to *hook* / *bring* up the subject of data hacking?
- What is your particular *field* / *source* of study?
- It's difficult to take *after* / *in* so much information.

**2 Complete the text with the words from the box.**

analysed breakthrough demonstrated evidence  
go over look at scrutinised theory

**Obesity and pollution**

Scientists at City University are close to a major <sup>1</sup> \_\_\_\_\_ in their research into obesity. Six months ago, Dr Alison Fletcher and her team began to test the <sup>2</sup> \_\_\_\_\_ that excessive weight gain could be caused by high levels of pollution. They decided to <sup>3</sup> \_\_\_\_\_ overweight people in fifty of the most polluted cities in the world. They <sup>4</sup> \_\_\_\_\_ their eating habits, lifestyle choices and medical history, as well as the levels of air pollution, and <sup>5</sup> \_\_\_\_\_ the results. 'It seems that we have <sup>6</sup> \_\_\_\_\_ the possibility that air pollution and obesity are related,' Dr Fletcher said. 'Colleagues of mine will <sup>7</sup> \_\_\_\_\_ the data again in more detail soon to see if other factors could be responsible for the link. They haven't collated enough <sup>8</sup> \_\_\_\_\_ to prove such a link yet, but it is hoped that it will lead to more funding for this important research.'

**GRAMMAR****3 Complete the jokes. Some letters are given.**

- I bought an 'advanced solar powered clothes dryer', but they just sent me a clothes line. I guess they're a little p \_ \_ \_ \_ to exaggerate.
- X: I saw lots of shooting stars last night!  
Y: Er ... are you aware that it's New Year's Day?  
They \_ i \_ \_ \_ not all have been meteorites.
- I've written a book about the world's greatest basements. It's \_ \_ \_ u \_ \_ \_ to be a best cellar.
- X: How did you get those chemicals to explode?  
Y: Actually, I was \_ \_ \_ \_ p \_ \_ \_ \_ \_ to be making coffee.
- X: It's just a simple medical operation, John.  
There's no \_ \_ \_ \_ d to panic.  
Y: Thanks, doctor, but my name isn't John.  
X: I know. I'm John.
- X: Are these mushrooms in the fridge fresh?  
Y: That's actually cheese. I \_ \_ u \_ \_ \_ have left it there a bit too long.

**4 Complete the sentences with the correct forms of the words in brackets. Add any other necessary words. Write up to six words in each gap.**

- You \_\_\_\_\_ (can / leave) your keys at home. You had them five minutes ago.
- I know where the treasure is hidden, but I \_\_\_\_\_ (forbid / tell) anybody.
- We should call your parents. They \_\_\_\_\_ (must / get) worried now.
- During yesterday's exam, everyone \_\_\_\_\_ (oblige / remain) silent.
- The chemistry teacher \_\_\_\_\_ (may / may not / joke) about failing half of the class this semester.
- Cacti \_\_\_\_\_ (prone / rot) if they sit in damp soil for too long.

**ROUND-UP 1 2 3 4 5 6 7 8****5 Choose the correct options.**

New message

Hi, Meghan,  
You <sup>1</sup> *won't probably* / *definitely won't* / *won't definitely* believe what happened at school yesterday. The city mayor was visiting, and everyone was <sup>2</sup> *likely* / *meant* / *necessary* to be on their best behaviour. Unfortunately, three of the rats from the biology lab <sup>3</sup> *escaped* / *had escaped* / *had been escaping* from their cages the previous night. Old Mr Jenkins, who looks after them, <sup>4</sup> *can't* / *must* / *should* have forgotten to shut their cage door.  
Anyway, yesterday, <sup>5</sup> *no sooner* / *not only* / *scarcely* had the mayor started giving her speech than one of the rats <sup>6</sup> *boosted* / *emerged* / *triggered* from behind a curtain and ran across the stage right behind her. She <sup>7</sup> *had to wonder* / *must be wondering* / *must have wondered* why all the students started laughing.

The next one turned up in the drama studio just as the mayor was about to look around, but Ms Oliver, the drama teacher, had a <sup>8</sup> *box* / *flash* / *train* of inspiration. She <sup>9</sup> *had been rehearsing* / *had rehearsed* / *rehearsed* the school play when the mayor walked in and just pretended all the screaming was part of the rehearsal. Then, just before the mayor left, she was sitting in the cafeteria having a coffee with the headteacher when her mobile phone rang. She put her hand into her bag and pulled out the last rat! And it was covered in chocolate. It <sup>10</sup> *must smell* / *might be smelling* / *must have smelled* the chocolate bar in her bag and gone in for a snack. Never before <sup>11</sup> *had I seen* / *I'd seen* / *saw I* such a look of horror on somebody's face!

I'll tell you what happened next when I see you tomorrow.  
Joe



## LISTENING

1 04 Usłyszysz wywiad z ekspertem nauki postrzegania. Odpowiedz na pytania zgodnie z treścią nagrania.

1 What examples does the professor give of issues that have already been solved?

2 Which phrase did the interviewer hear even though the professor didn't say it?

3 What efficient process does the professor describe?

4 Where can people in China, Japan, Korea and Vietnam see a rabbit?

5 Whose faces did our ancestors need to spot?

6 Why is the interviewer going to start listening to her A/C system?

## READING

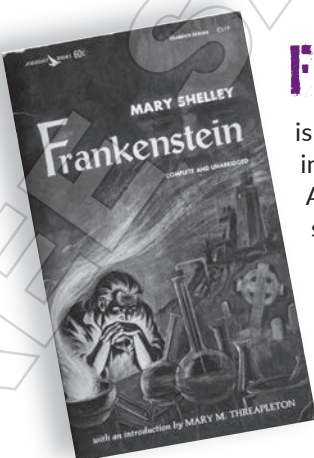
2 Przeczytaj fragment powieści. Uzupełnij streszczenie zgodnie z treścią fragmentu. W każdą lukę możesz wpisać maksymalnie trzy wyrazy.

It was on a dreary night of November that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. It was already one in the morning; the rain pattered dismally against the panes, and my candle was nearly burnt out, when, by the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs.

How can I describe my emotions at this catastrophe, or how delineate the wretch whom with such infinite pains and care I had endeavoured to form? His limbs were in proportion, and I had selected his features as beautiful. Beautiful! Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black, and flowing; his teeth of a pearly whiteness; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same colour as the dun-white sockets in which they were set.

The different accidents of life are not so changeable as the feelings of human nature. I had worked hard for nearly two years, for the sole purpose of infusing life into an inanimate body. For this I had deprived myself of rest and health. I had desired it with an ardour that far exceeded moderation; but now that I had finished, the beauty of the dream vanished, and breathless horror and disgust filled my heart. Unable to endure the aspect of the being I had created, I rushed out of the room and continued a long time traversing my bed-chamber, unable to compose my mind to sleep.

A cold dew covered my forehead, my teeth chattered, and every limb became convulsed; when, by the dim and yellow light of the moon, as it forced its way through the window shutters, I beheld the wretch—the miserable monster whom I had created. He held up the curtain of the bed; and his eyes, if eyes they may be called, were fixed on me. His jaws opened, and he muttered some inarticulate sounds, while a grin wrinkled his cheeks. He might have spoken, but I did not hear; one hand was stretched out, seemingly to detain me, but I escaped and rushed downstairs.



## FRANKENSTEIN

is the story of a scientist who creates a monster and then uses scientific instruments to add a(n) <sup>1</sup> \_\_\_\_\_ and bring the monster to life.

Although he had intended the monster to be beautiful, its <sup>2</sup> \_\_\_\_\_ spoiled its appearance. After bringing his creation to life, the scientist felt only

<sup>3</sup> \_\_\_\_\_ with his work. The scientist thought that the monster was trying to <sup>4</sup> \_\_\_\_\_ to him.





## USE OF ENGLISH

3 Przetłumacz fragmenty zdań na język angielski. W każdą lukę możesz wpisać maksymalnie pięć wyrazów.

- Why are they so late? \_\_\_\_\_  
(Mieli przyjechać) two hours ago.
- The TV isn't broken. I just forgot \_\_\_\_\_  
(go podłączyć).
- We didn't really have a plan. We just worked it out using a process of \_\_\_\_\_  
(prób i błędów).
- You want to borrow my laptop again? \_\_\_\_\_  
(Chyba żartujesz)!
- I need to conduct an experiment for school. Can you be my \_\_\_\_\_  
(królikiem doświadczalnym)?

4 Z opcji A-D wybierz właściwą odpowiedź.

## Do humans glow in the dark?

It's well-known that certain types of animals, including fireflies and various sea creatures, can emit light, using a technique called bioluminescence. But surely it's a bit <sup>1</sup> \_\_\_\_\_ to believe humans can glow in the dark too, isn't it? A team of scientists in Japan set out to <sup>2</sup> \_\_\_\_\_ this theory by locking five volunteers inside a light-tight room for hours at a time, and using super-sensitive cameras to detect any light that was emitted. <sup>3</sup> \_\_\_\_\_, the experiment worked! The equipment <sup>4</sup> \_\_\_\_\_ in picking up photons of light that are too few to be noticed by the naked eye (especially when there are other sources of light nearby). In case you're wondering, the cameras really did detect visible light, and not the <sup>5</sup> \_\_\_\_\_ light that is caused by heat. <sup>6</sup> \_\_\_\_\_ was the light emitted by the volunteers brightest on their foreheads, necks and cheeks, but it was also most visible in the late afternoon. Late at night, in contrast, barely any light was emitted. The researchers believe this discovery that light emission is somehow connected to our daily rhythms <sup>7</sup> \_\_\_\_\_ one day help doctors to identify illnesses simply by putting people into dark boxes and watching them glow.

- |                 |                |
|-----------------|----------------|
| 1 A ingenious   | B debilitating |
| C insatiable    | D far-fetched  |
| 2 A analyse     | B test         |
| C observe       | D propose      |
| 3 A Amazingly   | B Essentially  |
| C In a nutshell | D Simply put   |
| 4 A supposed    | B managed      |
| C succeeded     | D obliged      |
| 5 A infrared    | B vibrant      |
| C heightened    | D interstellar |
| 6 A Not until   | B Not only     |
| C Rarely        | D No sooner    |
| 7 A must        | B ought        |
| C shall         | D may          |

5 Uzupełnij każdą lukę jednym wyrazem.



### The cat who became an expert in physics

In 1975, Professor Jack H. Hetherington wrote a long and important physics paper entitled *Two-, Three-, and Four-Atom Exchange Effects in bcc <sup>3</sup>He*.

<sup>1</sup> \_\_\_\_\_ had he finished writing when he realised he had accidentally referred to himself as 'we' instead of 'I' throughout the paper. In those days, typing involved writing laboriously on a typewriter, so it would <sup>2</sup> \_\_\_\_\_ taken him weeks to fix his error by re-typing the whole thing. Instead, because he was keen to get the paper published as soon as possible, he simply added a co-author, his cat, whom he called F.D.C. Willard. After publication of the paper, it didn't take long for the deception to <sup>3</sup> \_\_\_\_\_ to light, when another scientist <sup>4</sup> \_\_\_\_\_ an unexpected visit to Hetherington's college in search of the authors. Luckily, most people saw the funny side of the story, and the cat <sup>5</sup> \_\_\_\_\_ made a kind of honorary physics mascot at the university. F.D.C. Willard even went on to author another paper in 1980, this time in French.

## WRITING

6 Przeczytaj polecenie i wykonaj zadanie.

Samochody autonomiczne (*self-driving cars*), które od pewnego czasu pojawiają się na naszych drogach, budzą wiele kontrowersji. Napisz **rozprawkę** na 200–250 słów, w której przedstawisz wady i zalety użytkowania takich pojazdów.

