

Reading

Read the texts and choose the best answer, a, b, c or d.

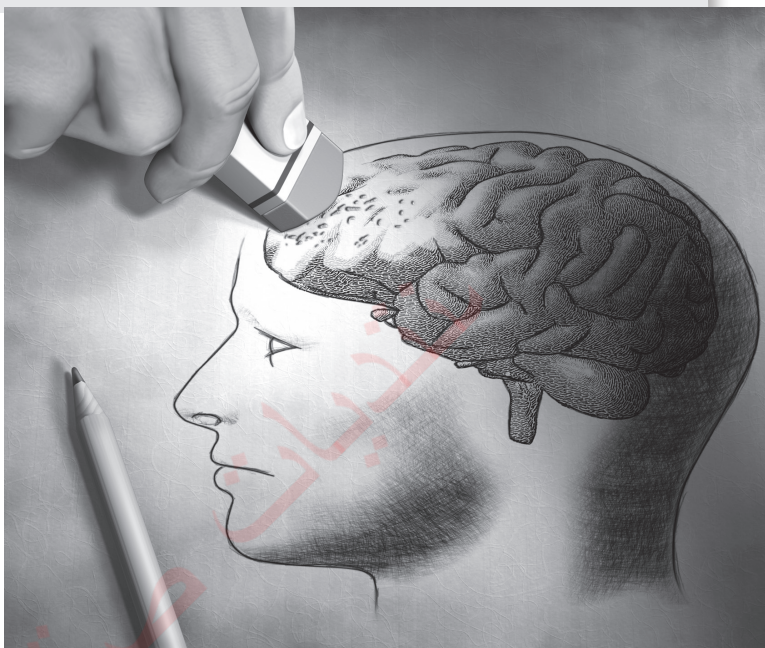
A

Erasing memories

Undoubtedly, we've all got memories we'd like to erase. But is it possible – or even necessary – to do so? Memory loss has been reported in psychiatric therapies involving shock treatments designed to help patients overcome severe emotional and psychological problems. However, highly questionable results obtained through a clearly painful process accompany this therapy, so while it may be possible to erase memories, could there be a less harmful process available?

Researchers may have discovered a way not to erase memories, but rather to change the way the mind processes them. In a week-long study, victims of traumatising events were given an experimental drug, propranolol, that disrupts the neural pathways in the brain that determine how we store and recall memories. Days later, when asked about their painful events, those who had taken the drug showed few signs of stress. It seems that the drug, which surprisingly is also used to treat amnesia, blocks the 'fear factor' that gets attached to painful memories.

It is known that memories we classify as painful are stored in a different part of the brain to other memories. Having taken propranolol, a patient recollects what would have been a painful memory but, because the fear factor has been eliminated, the person has stored the no longer painful memory in a different part of the brain. Thus, taking medication that positively changes the way memories are stored and recalled means there would be no need to erase them after all.



- 1 What is the main purpose of the passage?
 - a to analyse the treatment of psychological problems
 - b to discuss a safe way to deal with painful memories
 - c to help readers understand how memories work
 - d to talk about the findings of a study about memories
- 2 What about the drug *propranolol* does the writer find difficult to believe?
 - a It affects bad memories and not good ones.
 - b It is used for both forgetting and remembering things.
 - c It does not actually erase a memory at all.
 - d It eliminates the need to erase memories.
- 3 What effect does the drug seem to have on patients?
 - a It targets painful memories and erases them.
 - b It helps patients handle stressful situations calmly.
 - c It allows neural pathways in the brain to work properly.
 - d It allows the recipient to store memories differently.

B

Memory implants

The 1990 film *Total Recall* famously introduced memory implants to the world through Arnold Schwarzenegger's defiant character who imagined that he was an undercover spy on a mission to Mars. Although that was decades ago, memory implants are still the stuff of science fiction despite the fact that researchers have been working energetically to develop one.

Understanding how memory works is an incredibly challenging task, yet one that is key to developing an implant. A team of researchers from the University of Pennsylvania has begun by working with doctors who are already monitoring patients with electronic devices. In this particular group, the patients are part of another study on epilepsy, a brain disorder that causes involuntary muscle movements. Because the doctors have placed devices inside their brains to study epilepsy, researchers can utilise the technology to study how the mind forms and records memories. They are doing this by giving patients memory tests and recording the electrical activity. They hope to create a computer chip that can be placed inside the mind to help retrieve or even add memories.

To get an idea of the scope of the project, researchers will have to create a device that can analyse and process the data that a normal computer would take hours to do in 0.01 seconds. As this is a ridiculously short amount of time compared to today's computing standards, researchers have played down the prospect of the four-year project finishing on time.

- 1 What is the main purpose of this passage?
 - a to describe efforts to develop a memory implant
 - b to discuss how films have impacted science and medicine
 - c to compare how science and medicine help each other
 - d to give an opinion on the need for memory implants
- 2 Why are researchers using epilepsy patients in their study?
 - a Their unique brain patterns help them study memory.
 - b The procedures for their study were already in place.
 - c It was part of the original study for the patients.
 - d It was the only way researchers could conduct the study.
- 3 What is **not** true about current technology for data transfer and analysis?
 - a Data can be obtained electronically from a person's brain.
 - b It is insufficient to make a memory implant work.
 - c Data can be added to a person's brain through electronic means.
 - d A significant length of time is needed to analyse a single set of data.

Reading: ____ / 12

a-z Vocabulary

1 Complete the sentences with the correct form of the words in bold.

- 1 Unfortunately, the caves are not _____ to the public – only expert cavers with special equipment can get into them. **ACCESS**
- 2 The workers are demanding a pay rise and are _____ in the face of the company's threats to sack them if they come out on strike. **DEFY**
- 3 There's been a great deal of _____ in the press as to which minister is involved in a financial scandal. **SPECULATE**
- 4 Elvis _____, such as T-shirts, old posters and records, is worth a lot of money these days. **MEMORY**
- 5 The newspaper editor believes it would be _____ to use this woman's tragic death as a way of selling more newspapers. **TASTE**
- 6 Jason doesn't have a strong character and he's always very _____ towards his demanding mother. **SUBMIT**

____ / 6

Progress Test 3



2 Complete the sentences with these words to make compound nouns and adjectives.

badly common full life science worm

- 1 Phoebe loves reading _____ fiction and her favourite series of books is *The Hunger Games* trilogy.
- 2 I don't believe that humans will inhabit another planet in my _____ time.
- 3 Some scientists believe that time travel may be possible using a _____ hole in the space-time continuum.
- 4 Geraldine is looking for a _____-time job now that her children are at school.
- 5 You can't go exploring the cave wearing sandals – use your _____ sense!
- 6 I thought it was a boring and _____-written book; I wasn't very impressed at all.

____ / 6

3 Complete the sentences with these words.

ambiguity hindsight hoax imagination keepsake nature retention train

- 1 Mario is interested in any and all subjects of a scientific _____.
- 2 My mother always brings a pebble or a shell home as a(n) _____ from her summer holidays by the sea.
- 3 In _____, I realise that setting off up the mountain with no rainwear or compass was a foolish mistake.
- 4 My brother and sister's loud argument made me lose my _____ of thought.
- 5 They say that the _____ of information such as names, dates and so on, becomes more difficult as you get older.
- 6 Luckily, the bomb threat sent to the college turned out to be a(n) _____ and the students were able to carry on with their lessons.
- 7 There seems to be a certain amount of _____ as to whether the assistant manager or the department head is in charge while the director is away.
- 8 Of course you can come up with a scenario for our class film – just use your _____!

____ / 8

4 Circle the correct words.

- 1 The police have ruled **out / up** murder in their investigation – they say the man's death was a tragic accident.
- 2 Please bear **in / through** mind that the caves will be cold and damp, so wear warm clothing and waterproof shoes.
- 3 We all need to reflect **over / on** the mistakes which we made during this project and try to improve our performance next time.
- 4 Films about space travel appeal **on / to** a lot of people with an interest in science and technology.
- 5 I don't believe your parents are buying you a Ferrari; you're having me **on / out**, aren't you?
- 6 Sales staff need to commit all the product code numbers and prices **in / to** memory.
- 7 The employee thought that he had cleverly stolen millions of pounds, but in fact, the police had set him **up / under** and he was caught red-handed.
- 8 I admire Nelson Mandela because he fought **against / for** injustice whatever the personal cost to himself.

____ / 8

Vocabulary: ____ / 28

Grammar

1 Complete the second sentence so it has the same meaning as the first sentence, using the word in bold. You must use between three and six words, including the word given.

- 1 Her writing is dull because it lacks imagination.

WHY

Her lack of imagination _____ her writing is dull.

- 2 The most popular books for children are written by Jacqueline Wilson.

WRITER

Jacqueline Wilson is the _____ most popular with children.

- 3 What I most admire about him is his spirit of adventure.

I

It's his spirit of adventure _____ admire.

- 4 Two of the souvenirs that I bought were presents for my parents.

TWO

I bought several souvenirs, _____ presents for my parents.

___ / 8

2 Complete the sentences with one word in each gap.

- 1 My best friend and I always help _____ another with our homework.
2 _____ has taken my bag – I left it just here and now it's gone!
3 We often reminisce about our seaside holidays; _____ were magical days!
4 Your children have too many sugary drinks and _____ is harmful for their teeth, their skin and their general health.
5 _____ are talking about building a memorial to the victims of the earthquake.
6 People think she's a bit strange because she's always talking to _____.
7 Working in pairs, I want you to tell each _____ about the scientific phenomenon you have researched.
8 Generally speaking, _____ don't have to have a perfect memory to be a good student.

___ / 8

3 Complete the sentences with the correct form of the verbs in brackets.

- 1 Memories can fade if you _____ (not have) photos to remind you of past events.
2 If I were more adventurous, I _____ (go) on the safari trip last year.
3 You'll have to commit a lot of information to memory if you _____ (want) to pass the history exam.
4 If I _____ (see) the memo, I would have come to the meeting.
5 If you _____ (suffer) from amnesia, you can't remember anything.
6 He would be arrested if the police _____ (discover) the scam.
7 We _____ (retrieve) the information provided you had backed up your files.
8 If you hide behind the sofa, you _____ (miss) half the film!

___ / 8

4 Circle the correct words.

- 1 Supposing you could travel through time, where **do** / **would** you go?
- 2 I wish you **had** / **would have** a bit more common sense!
- 3 It's high time we **took** / **would take** a break – we've been working non-stop for six hours.
- 4 If only my mind **didn't go** / **hadn't gone** blank during the interview!
- 5 It sounds to me **supposing** / **as if** you can't count on Sam.
- 6 I wish you **wouldn't talk** / **hadn't talked** about me behind my back all the time.

___ / 6

Grammar: ___ / 30

Writing

You see this announcement on an education website for teens.

Visiting a museum, cultural centre or science fair can encourage school pupils to enrich and deepen their knowledge of a subject. Have you been to an interesting museum or place of special interest which has helped you with your schoolwork?

Write a review describing the place you visited, explaining how it helped you with your schoolwork and saying whether you would recommend it to students. Give reasons for your views.

Writing: ___ / 10

Mark: ___ / 80

Write your review. (220-260 words)

