Clever machines

I can understand a text about artificial intelligence.

1 **SPEAKING** Read the conversation between a human and a computer at the beginning of the article. Is it obvious which is the computer and which human?

2 Now scan the text and find out which is the computer. Check your ideas from exercise 1.

Reading Strategy
In a multiple-choice question, the correct option will match the meaning of the text but use different words. It is therefore important not to *automatically* assume that a multiple-choice option which contains words from the text is correct.

3 Read the Reading Strategy. Then complete these tasks.

1 Look at question 1 in exercise 4. Read the second paragraph of the text (lines 8–23).
2 Circle the correct answer and identify the part of the text which gives the answer.
3 How many words from that part of the text does the correct answer contain?
4 Which words are used in the text instead of the words in the question?

Testing intelligence

🎧 2.19

A Hello there.
B How are you?
A I am doing very well. How are you?
B Fine.
A Glad to hear it. What's new?
B Nothin'.
A Fair enough. What do you want to talk about?
B I dunno.
A You don't know what you want to talk about?! Humans are not too intelligent at times.
B Says the one who doesn't know my name.
A You have not yet told me your name.
B MY NAME IS A.A.R.D.V.A.R.K.
A No, it isn't. What is your real name?

This conversation is between a real human and a computer program called Mitsuku. Programs like Mitsuku are called 'chatbots'. Mitsuku was the winner of the Loebner Prize in 2013, an annual competition
5 to find a program that can pass the Turing test. The test, designed to measure artificial intelligence, was invented by British mathematician Alan Turing.

Fifty or sixty years ago, computers were very simple machines, but even then scientists believed that one
10 day machines would be able to 'think' and that they would probably be as intelligent as humans. The question was, 'How can we measure the intelligence of a machine?' Alan Turing, who had helped to break the German Enigma code during the Second World War,
15 came up with an answer. He said we need to ask, 'Can this computer talk? Can it have a conversation like a human?' If it can, he argued, then it is intelligent and it can think. In a Turing test, judges sit at a screen and have a chatroom conversation with the chatbot program.
20 They don't know if they are chatting with another person or with a chatbot. After exchanging messages for five minutes, the judge decides if he or she is chatting with a human or a machine.

4 Read the rest of the text. Choose the correct answers (a–d).

1 Around the middle of the last century, scientists
   a tried to build computers that were as intelligent as humans.
   b built a machine that could have a conversation with a human.
   c thought that computers could never be as intelligent as humans.
   d thought that in the future computers and people might be equally clever.

2 According to the Turing test, a computer that could think would be able to
   a break the Enigma code.
   b talk to people like an ordinary person does.
   c chat with another computer.
   d have a chatroom conversation for a minimum of five minutes.

3 Chatbots that enter the Loebner competition
   a have a 30% chance of winning.
   b share prize money of $100,000.
   c need to appear human to about a third of the judges.
   d will never win the big money prize.

4 The main criticism of the Turing test is that
   a Turing focused on the wrong type of intelligence.
   b the winner simply has to copy human behaviour.
   c Google and NASA computers can also achieve amazing things with the help of chatbots.
   d chatbots are designed to do things that we can't do.

5 The writer of the text
   a agrees with the critics of the Turing test.
   b is more impressed with search engines than chatbots.
   c does not express a personal opinion on the validity of the Turing test.
   d believes that people are just very complex robots.

5 SPEAKING Do you agree that a search engine like Google is more impressive than a chatbot that can seem human? Why? / Why not?

6 VOCABULARY Complete the verb–noun collocations with the nouns below. They are all in the text.

Verb–noun collocations   an answer   a code   a competition   a conversation   a prize   a test   a website   messages

1 pass _____
2 break _____
3 come up with _____
4 have _____
5 exchange _____
6 enter _____
7 win _____
8 search _____

▶▶ Vocabulary Builder Verb–noun collocations: page 123

7 SPEAKING Work in pairs. Imagine that you were going to chat with a chatbot. Think of six questions that you would ask or requests you would make. Try to think of questions that would reveal that it was not human.

8 SPEAKING Share your ideas with another pair or with the class. Vote on the best ideas.

We would ask, 'Tell me how to boil an egg.'

9 INTERNET RESEARCH Complete the following tasks.

1 Search online for the websites of chatbots such as Mitsuku, A.L.I.C.E., Jabberwacky chatbot and Elbot.
2 Have an online conversation with one of them. Use your ideas from exercises 7 and 8.
3 Write down the questions you ask and the chatbot's replies.
4 Bring them into school and discuss them with your class. How convincingly human are the chatbots?

Turing predicted that by the year 2000, the average person 'will not have more than a 70% chance of making the right identification'. In other words, computers would trick the judges 30% of the time. An American called Hugh Loebner was fascinated by Turing's idea, and in the early 1990s he offered a prize of $100,000 to the creator of the first chatbot to pass the Turing test. In order to win the $100,000, a chatbot must convince at least 30% of the judges that it is human. Many chatbots have entered the competition, but so far no chatbot has won the big money prize. Mitsuku, however, came very close. In the conversation at the beginning of this article, Mitsuku is A and the real human is B. You can tell that A is not human because at one point in the conversation, A says 'Humans are not too intelligent at times.' Although Mitsuku failed to win the $100,000, it certainly won't be long before a chatbot is able to fool the Loebner judges into thinking that it is a real person.

But is the Turing test a good way to decide if a machine is intelligent? Critics argue that the chatbots in the competition are merely imitating humans. Humans are the only animals on Earth that can speak, and that's why Turing chose to focus on it. But what is really impressive, critics say, is machines that do things that we can't do. For example, it is amazing that Google can search hundreds of millions of websites for a single word in a matter of seconds, or that a NASA computer can control a rocket on a journey from Earth to Jupiter. Even some of the things that smartphone apps can do are extremely impressive. Those achievements are far more interesting and useful than a chatbot's. A chatbot is really nothing more than a successful liar, so the argument goes.

Fans of the Turing test, on the other hand, feel that humans are themselves machines. It's just that our brains are far more complex than computers. As philosopher and scientist Daniel Dennett said in a recent interview, 'It's not impossible to have a conscious robot. You're looking at one.'