

LISTENING

Section 1

You will hear a podcast discussion between two chefs, Angela Hoskins and Nicholas Jones, giving advice for cooking a three-course meal. For questions 1–5, choose the correct answer (A, B, C or D). You will hear the recording twice.

- 1 When cooking a three-course meal, Nicholas is ...
 - A relaxed because he is a professional chef.
 - B concerned that people might judge his cooking.
 - C intimidated by the amount of preparation.
 - D always fully focused, despite his experience.

- 2 What does Angela say about cooking shows on TV?
 - A The chefs on TV exemplify the correct approach to cooking.
 - B The dishes are simple, so they are less likely to go wrong.
 - C The chefs on TV require far less time for preparation.
 - D A lot of effort is put in to choosing the ingredients needed.

- 3 According to both Nicholas and Angela, dishes usually go wrong as a result of ...
 - A poor ingredients.
 - B bad knife skills.
 - C a lack of concentration.
 - D misunderstanding recipes.

- 4 Why is there such a detailed approach to planning in restaurants?
 - A So that all potential errors are identified and removed.
 - B In order to reduce the time it takes to prepare dishes.
 - C To encourage staff to prepare for potential errors in advance.
 - D So that managers can identify which staff make more mistakes.

- 5 Nicholas says that to improve their cooking ability people must ...
 - A be prepared to practise the same dishes several times.
 - B start to think in the same way as professional chefs think.
 - C experiment with different dishes for their own dinner parties.
 - D apply the same evaluation techniques as with other difficult tasks.

Section 2

You will hear a radio discussion about decision-making. For questions 6–10, choose the correct answer (A, B, C or D). You will hear the recording twice.

6 What does Dr Goodson say about the game 'rock, paper, scissors'?

- A The rules are much more complex than people think.
- B It is a game that involves high levels of intelligence.
- C Successful players use a range of different techniques.
- D There are no special skills required to play it well.

7 Recent research into the game of 'rock, paper, scissors' has shown that ...

- A players with strong analytical abilities do well.
- B it is actually based on reasoning and psychology.
- C playing it relies on very fast decision-making.
- D distraction is one of the best winning strategies.

8 'Conditional response' is a strategy which focuses on ...

- A anticipating an opponent's behaviour.
- B repeating successful techniques.
- C learning a fixed set of responses.
- D perfecting one specific strategy.

9 Katherine and Anthony suggest that studying 'rock, paper, scissors' is ...

- A a way of reducing competition between colleagues.
- B more effective than other types of behavioural research.
- C helpful to understand just how managers think.
- D useful for improving cooperation in the workplace.

10 What point does Dr Goodson make at the end of the discussion?

- A That the human brain is somewhat limited in its processing power
- B That humans have realistic expectations of their decision-making
- C That the university robot has an unfair advantage over humans
- D That computers are better at decision making than humans overall

READING AND USE OF ENGLISH**Section 1**

Read the article. For questions 1–10, choose from the people A–E. The people may be chosen more than once.

3D printing – a modern marvel

Three-dimensional printing may sound like a concept from a sci-fi novel, but the truth is it's becoming increasingly common in everyday life. In this article, we spoke to five people who use 3D printing on a daily basis.

A Huang Lui

I've been working in an architectural agency in Shanghai for around seven years now, and the company is not only geared towards sustainability, but also providing sufficient housing for a city which is already teeming with millions of inhabitants. Our aim is to provide low-cost and sustainable solutions for an urban setting, and 3D printing has facilitated that. Despite our printed houses currently being prototypes, we're predicting that within a few years, we'll be able to produce 10 homes per day, fully printed, with no excess waste, for as little as \$1,000 each. This would save an enormous quantity of resources as well as time.

B Hannah Potter

I've been running the educational program here at the Metropolitan Art Museum for a while now, and one of our major issues involves granting public access to great artworks, while at the same time ensuring that the art remains perfectly preserved. We are actually seriously considering creating 3D copies of some of our most valuable works to widen access while protecting the originals. Of course, this presents a lot of dilemmas for us ... are we therefore condoning forgery? Should great talent simply be 'reproduced' and if so, where does that line end?

C Anna McPherson

I work at a medical research facility and we've been working on 3D-printed organ replacements for a number of years. We've already released a substantial quantity of products into the market, such as prosthetics and dental implants, which have all been digitally printed, but now we're focusing on body parts, which is a more complex world of 3D printing. We've managed to reproduce cell tissue, which has been used by pharmaceutical companies in testing, and any day now, our ultimate goal will become a reality – we'll be able to print out actual human organs for transplants. In fact, we're clinically testing 3D ears at the moment. I appreciate that many might feel there are ethical implications for this, but as I see it, we're entirely focused on improving the quality of people's lives and, in my mind, there's no question of its value. It's priceless.

D Abdullah al Musa

So, I started a business here in the UAE, and we're hoping to launch within a year as the first wholly 3D restaurant in the Middle East. We're not the first in the world. In fact, we're taking our inspiration from a groundbreaking restaurant called 'Food Ink', which is based in London – even their tables and chairs are 3D printed, as well as all their food. We're working on a menu right now, and all the food and drink will be produced by printers. We're using fresh ingredients which are mashed into a puree. Although the concept is futuristic, our theme is entirely traditional; that goes from the types of regional dishes we will offer, to the fact that we're setting it up in one of the oldest buildings in the UAE, to provide an atmosphere of mystery. We want people to think they're having an old-fashioned experience, through the means of the future.

E Troy Burnett

Here at the International Space Station, we've had a 3D printer for some time, since 2014 actually, and it makes a huge difference when it comes to the logistical challenge of being hundreds of miles from earth. I have to admit I was a little skeptical about it working at first, but the lack of gravity we have here has actually had no effect on the printer whatsoever, so we've successfully managed to print out replacement tools or parts, with no need for lengthy transportation, and it saves us considerable storage room. Designs, which are essentially just sent up from control, are easily printed out. Obviously, there's a lengthy testing process for this – we have to ensure that everything produced is sufficiently resilient and robust to handle the atmosphere it'll be used in – but so far, we've had a great deal of success, which is wonderful.

Which person ...

- 1 is using 3D printing as a form of security?
- 2 is using 3D printing for entrepreneurial means?
- 3 is nearest to reaching a breakthrough?
- 4 is using 3D printing for ecological manufacturing?
- 5 is following a market innovator?
- 6 wasn't convinced about the use of 3D printing initially?
- 7 wants to play with people's perceptions?
- 8 is aiming to solve a societal problem?
- 9 isn't sure about the ethical considerations of 3D printing?
- 10 is pleased the printer works under extreme conditions?

Section 2

For questions 11–20, read the text below and decide which answer (A, B, C or D) best fits each gap.

An incredible inventor who changed road safety

For reasons of safety, traffic in many places around the world is carefully controlled. Since the invention of motor cars, traffic jams and accidents have persisted. Even predating the motor car, in capital cities such as London the same problems existed with more traditional horse-drawn modes of transport. However, controls have long been in place as a way to ease (11) _____ and limit the likelihood of injury. These controls originally took the form of police officers waving and halting traffic at busy junctions.

By the early 1900s, there were a (12) _____ of designs for traffic lights, ranging from wooden signs alternately displaying 'stop' and 'move' at junctions, to red and green gas lights to indicate when cars should go. However, one man, Garrett Morgan, did not consider these systems to be adequate. He identified a crucial (13) _____ to the present system, and thus the three-way traffic light was born.

Garrett Morgan, born in 1877, grew up in Kentucky and Ohio, and was the seventh of eleven children. The family were by no means (14) _____, and, not having the opportunity to attend high school, he did odd jobs from an early age and found employment repairing sewing machines in factories. He came to realise that his talents lay in engineering and established his own sewing machine factory. Subsequently, he forged (15) _____ with developing new and innovative equipment, and in no time at all he became a trailblazer in engineering.

Because of his success in local business, he became one of the few people to possess a car when the roads were still full of older forms of transport, and it was here that his most famous invention came (16) _____. While there were traffic signals at this time, they were inadequate. Morgan couldn't help but note the number of accidents caused by the sudden traffic flow changes. This is when he had his (17) _____ – the idea of a warning signal, between red and green, commonly known these days as an amber light.

It was also used when flashing amber to indicate that the junction was quiet, so drivers could (18) _____, but with care. These innovations changed the way people drive and have unquestionably made the roads safer. In fact, the three-way traffic light is a (19) _____ feature of road safety in many countries. Morgan's contributions did not stop there though. Amongst his many other inventions, he developed a smoke hood which kept firefighters safe from (20) _____. Morgan's advancements worked as blueprints for further safety developments which continue to save lives now.

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|--------------------|-------------------|----------------|---------------|
| 11 A residue | B congestion | C obstacles | D restriction |
| 12 A breadth | B fortune | C mass | D wealth |
| 13 A enhancement | B attribute | C progression | D precedence |
| 14 A immense | B undervalued | C eligible | D affluent |
| 15 A across | B ahead | C beyond | D about |
| 16 A around | B over | C about | D across |
| 17 A clarification | B outcome | C breakthrough | D setback |
| 18 A proceed | B navigate | C persist | D launch |
| 19 A credible | B straightforward | C distinctive | D viable |
| 20 A steam | B moisture | C haze | D fumes |

The local government has decided to spend more money on youth services in your area, and wants to build a centre for young people there. It has asked local people for proposals on what form the centre should take and what could be offered there, that can benefit youths, but also the wider community.

Write your proposal in 220–260 words.

/30

SPEAKING

Choose **ONE** set of three questions per student. Give each student 3–4 minutes.

Community

- 1 How can people help others who live in their community?
- 2 Everyone should do something to try and improve their community. How far do you agree with this statement?
Why?
- 3 To some people, a sense of community is really important whereas to others, less so. Why might this be?

Local and national issues

- 1 Would you say people generally care more about local issues than national ones? Why?
- 2 Whose responsibility is it to ultimately deal with local issues? Why?
- 3 Which issues do you feel young people are most concerned about where you live? Why?

____/20
Total ____/100