

VOCAB TEST – Exercises 15 & 16

Task 1: Fill in the blanks by dragging and dropping the right word below.

(soar / driverless cars / boost / smuggle / adapt to / gain control / overcome / monopoly / enforcement / exploit)

1. During the 17th century, many European countries tried to _____ the spice trade.
2. The price of nutmeg began to _____ after it became a luxury product.
3. The Portuguese wanted to _____ over the spice islands.
4. Some traders tried to _____ spices illegally to avoid paying taxes.
5. The Dutch created a _____ by controlling all spice routes.
6. Governments must strengthen law _____ to ensure safety on roads.
7. The use of robots can _____ production and improve quality.
8. Scientists are finding ways to _____ technical problems in self-driving systems.
9. _____ are expected to reduce the number of road collisions.
10. Workers must _____ new technology to stay competitive.

Task 2: Match the words to their definitions.

Words	Meanings
flexibility	A plan or action that can work successfully
viable initiative	The ability to change or adapt easily
robust research	Serious or detailed study that is strong and effective
turnover rate	The speed at which employees leave and are replaced
autonomy	The ability to make decisions independently

Task 3: Read a part of a passage and finish the following exercises.**Urban farming**

In Paris, urban farmers are trying a soil-free approach to agriculture that uses less space and fewer resources. Could it help cities face the threats to our food supplies?

On top of a striking new exhibition hall in southern Paris, the world's largest urban rooftop farm has started to bear fruit. Strawberries that are small, intensely flavoured and resplendently red sprout abundantly from large plastic tubes. Peer inside and you see the tubes are completely hollow, the roots of dozens of strawberry plants dangling down inside them. From identical vertical tubes nearby burst row upon row of lettuces; near those are aromatic herbs, such as basil, sage and peppermint. Opposite, in narrow, horizontal trays packed not with soil but with coconut fibre, grow cherry tomatoes, shiny aubergines and brightly coloured chards.

Pascal Hardy, an engineer and sustainable development consultant, began experimenting with vertical farming and aeroponic growing towers – as the soil-free plastic tubes are known – on his Paris apartment block roof five years ago. The urban rooftop space above the exhibition hall is somewhat bigger: 14,000 square metres and almost exactly the size of a couple of football pitches. Already, the team of young urban farmers who tend it have picked, in one day, 3,000 lettuces and 150 punnets of strawberries. When the remaining two thirds of the vast open area are in production, 20 staff will harvest up to 1,000 kg of perhaps 35 different varieties of fruit and vegetables, every day. 'We're not ever, obviously, going to feed the whole city this way,' cautions Hardy. 'In the urban environment you're working with very significant practical constraints, clearly, on what you can do and where. But if enough unused space can be developed like this, there's no reason why you shouldn't eventually target maybe between 5% and 10% of consumption.'

Perhaps most significantly, however, this is a real-life showcase for the work of Hardy's flourishing urban agriculture consultancy, Agripolis, which is currently fielding enquiries from around the world to design, build and equip a new breed of soil-free inner-city farm. 'The method's advantages are many,' he says. 'First, I don't much like the fact that most of the fruit and vegetables we eat have been treated with something like 17 different pesticides, or that the intensive farming techniques that produced them are such huge generators of greenhouse gases. I don't much like the fact, either, that they've travelled an average of 2,000 refrigerated kilometres to my plate, that their quality is so poor, because the varieties are selected for their capacity to withstand such substantial journeys, or that 80% of the price I pay goes to wholesalers and transport companies, not the producers.'

Produce grown using this soil-free method, on the other hand – which relies solely on a small quantity of water, enriched with organic nutrients, pumped around a closed circuit of pipes, towers and trays – is 'produced up here, and sold locally, just down there. It barely travels at all,' Hardy says. 'You can select crop varieties for their flavour, not their resistance to the transport and storage chain, and you can pick them when they're really at their best, and not before.' No soil is exhausted, and the water that gently showers the plants' roots every 12 minutes is recycled, so the method uses 90% less water than a classic intensive farm for the same yield.

Questions 1–3: Complete the sentences below.

Choose NO MORE THAN TWO WORDS AND/OR A NUMBER from the passage for each answer. Write your answers in boxes 1–3 on your answer sheet.

Urban farming in Paris

1. Vertical tubes are used to grow strawberries, _____ and herbs.
2. There will eventually be a daily harvest of as much as _____ in weight of fruit and vegetables.
3. It may be possible that the farm's produce will account for as much as 10% of the city's _____ overall.

Questions 4–7: Complete the table below.

Choose ONE WORD ONLY from the passage for each answer. Write your answers in boxes 4–7 on your answer sheet.

Intensive farming versus aeroponic urban farming			
	Growth	Selection	Sale
Intensive farming	• wide range of 4 used • techniques pollute air	• quality not good • varieties of fruit and vegetables chosen that can survive long 5	• 6 receive very little of overall income
Aeroponic urban farming	• no soil used • nutrients added to water, which is recycled	• produce chosen because of its 7	