8.4 READING

Green cities • collocations • pollution • word families

1 Read the text quickly and decide why it was written.

1 To explain how to do more recycling in cities ☐
2 To present a particular environmental project ☐
3 To give advice on how to save energy at home ☐

Greener and cleaner cities



1 ____
Today, there are around 7.4 billion people living on the planet. The Earth's population, however, is growing at 1.1% each year, which means that by the year 2030 there will be about 8.4 billion people. What's more, most people choose to live in cities because it is easier to find work. Busier and larger cities, however, use a lot of natural resources such as gas and electricity. It also means more vehicles* on the roads and greater use of public transport by people who commute to work.

One key question, then, is this: what can we do to protect the environment and deal with the larger number of people living on the planet?

2 ____
One idea might be the construction of lighthouse* cities. At present, Stockholm, Barcelona and Cologne are part of an experimental project to create cleaner, more energy efficient* cities for people to live in. If the results of these experiments prove successful, the ideas and technology will be transferred to other cities to help the creation of a better, more environmentally friendly Europe.

3 ____
One of the major technological inventions these cities are using is connected to recycling. But not the recycling of plastic, glass and paper which we all know. The lighthouse cities want to recycle heat.



Experts have realised that the great amount of hot air created by computer data centres, stadiums and supermarkets is wasted. But in Stockholm this 'waste heat' is already used to create hot water which is then pumped around the city into private houses and housing estates. This recycling of energy is saving both money and the resources which generate* heat in the first place.



4 ____
When it comes to fighting pollution, lighthouse cities aim to encourage the use of car-sharing to help reduce the number of vehicles on the roads. In Cologne, there are plans to build special car parks for electric cars which local people can 'book' and then share with other passengers on their journeys. When the cars are parked, they transfer energy to each other so that each vehicle is ready for a journey and that energy is used efficiently.



5 ____
Another aim of the lighthouse city project is to make people understand how to save on natural resources. Residents in all cities will be able to use apps to monitor how much energy they are using and when is the best time to clean the house, for example, or do the washing. There may even be prizes for the 'greenest' residents. The idea here is that if people can save money and save the environment at the same time, they will probably act more responsibly.

That's why the lighthouse cities like Stockholm, Cologne and Barcelona, like the lighthouses of the past, are 'showing the way' to a safer future.

GLOSSARY

vehicle *(n)* – a machine with an engine such as a car, bus, or truckd
lighthouse *(n)* – a tower with a powerful flashing light that guides ships away from danger
efficient *(adj)* – if someone or something is efficient, they work well without wasting time, money, or energy
generate *(v)* – to produce or cause something

LIVEWORKSHEETS

2 Read the text again and answer the questions.

1 How many more people than today will live on the Earth by the year 2030?

_____

_____

2 Why is living outside big cities not a very attractive option for many people?

_____

_____

3 On what condition will the new, innovative idea be used in cities across Europe?

_____

_____

4 What do they do in Stockholm to get hot water?

_____

_____

5 In what two ways do lighthouse cities plan to reduce pollution?

_____

_____

6 Why will people feel motivated to behave in a more responsible way?

_____

_____

3 Read the text again. Match headings A–G with paragraphs 1–5. There are two extra headings.

A Cleaner commuting
B Learning to care
C Reusing more than rubbish
D The city of dreams
E More people, more problems
F Gadgets that make life easier
G Modern solutions to city living

4 Find and complete words in the collocations from the text. The first letters are given.

p*opulation* growth

1 **n**_____ resources
2 **p**_____ transport
3 to **c**_____ to work
4 to **p**_____ successful
5 **t**_____ inventions

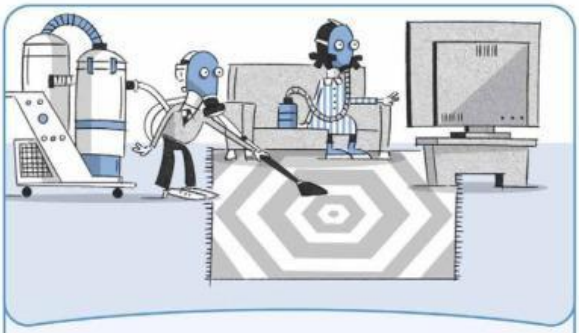
5 Use the collocations from Exercise 4 in the correct forms to complete the sentences.

I think *population growth* is a major problem. How can we grow food for so many people?

1 If this experiment _____ , we can help millions of people have healthier lives.
2 I wonder what amazing _____ we will see in the next 50 years.
3 James hates using _____ because he says the buses and trams are too unreliable.
4 Edith likes living in the city centre because she doesn't have to _____ .
5 We need to use renewable energy like solar and wind power because _____ will not last forever.

VOCABULARY PRACTICE | Pollution

6 Look at the vocabulary in lesson 8.4 in the Student's Book. Choose the correct words.



The **MegaSuck** vacuum [1]*storm / mask / cleaner* doesn't just work on your carpet! The powerful **MegaSuck** mechanism also clears the air in your home from vehicle exhaust [2]*fumes / particles / smoke*, dangerous factory [3]*smoke / particles / pollution*, unhealthy smog [4]*particles / storms / fumes* and other forms of air [5]*particles / pollution / purifiers*. It can also protect you from dust [6]*fumes / smoke / storms*. Clean your house and help with environmental [7]*pollution / storms / protection*. You'll never need to wear a face [8]*mask / protection / cleaner* in your home again!

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WORD STORE 8E | Word families

7 Complete the sentences with the correct form of the words in capitals.

The *pollution* in this city is almost as high as in Beijing! **POLLUTE**

1 I am happy to hear any _____ criticism you may have on the new project. **CONSTRUCT**
2 James has a bottle with a special filter which _____ tap water – it's cheaper and better for the planet. **PURE**
3 There are many _____ ideas which we can use to improve the environment. **CREATE**
4 When a huge ship sank, nearly 200,000 tonnes of oil _____ the nearby ocean waters. **POLLUTION**
5 Tristan has bought an air _____ for his bedroom. Now he sleeps like a baby. **PURE**
6 Environmental _____ is the responsibility of every person on Earth. **PROTECT**
7 You have been very _____ during this difficult time in my life. **SUPPORT**
8 The _____ of World Wide Fund for Nature (WWF) in 1961 meant that the negative influence of people on nature was already visible in the 1960s. **CREATE**

LIVEWORKSHEETS