



ENGLISH

Chapter 4

5th
SECONDARY



Welcome to the Future!

 **SACO OLIVEROS**

HELICOMOTIVATION

Welcome to the future where anything is possible!





Welcome to
the future!

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FACING THE FUTURE


WDYT?
(What do you think?)

What changes would you
like to see in the future?

Describing products



Vocabulary

- 1**  Look at the words in the box. Which adjectives form a negative with prefixes *un-* or *im-*? What is the opposite of the others?

comfortable easy-to-use handy/useful high quality innovative
practical reasonable reliable wearable well-made

uncomfortable

unreliable

unreasonable

impractical

unwearable



2  **10** Listen to Oscar talking to Mia about useful devices and answer the questions.

1 What's her latest device?

A speaker.

2 Which device would Oscar like to see in the future?

A cell phone which projects videos.

3 Which of the words in exercise 1 do they use?

Handy, easy to use, unreliable, low quality and hard to use.

3



Work in pairs. Discuss your favorite devices and the ones you would like to use in the future.

Changes

4



Check the meanings of the words and phrases in bold in the quiz. Then match questions 1–4 with images A–D.

1

The fourth industrial revolution will bring **mind-blowing** changes in areas like artificial intelligence and nanotechnology. Will you be able to **let go** of the past and **embrace** the new?

NO What's wrong with old-fashioned things anyway?

YES Sure! I can **adapt** to any **new circumstances**!

☐

A

☐

B

☒

C

☐

D



2

Given the **major breakthroughs** in space exploration, are you ready to travel to Mars?

NO I don't travel well anyway.

YES I'll take the risk. I imagine there'll be a **sharp rise** in bookings!

☒

A

☐

B

☐

C

☐

D



3

Are you **eager** to get your motorcycle or driver's license?

NO With the age of driverless vehicles **fast approaching**, is it worth it?

YES I may still need to take control of the vehicle if something **unexpected** happens.

- ☐ A ☐ B ☐ C ☒ D



4

Advances in DNA technology are great for the safety of our society.

NO This technology is **evolving** rapidly; who knows what scientists will do next and at what cost?

YES It means we can catch criminals more easily through fingerprints or skin particles.

- ☐ A ☒ B ☐ C ☐ D



5



Work in pairs. Do the quiz. Compare your answers with your partner.

6 Complete the table with the words in the quiz.

Nouns	Verbs	Adjectives
<i>a (real) struggle</i>	<i>welcome</i>	<i>mind-blowing</i>
circumstances breakthrough rise advances	let go embrace adapt evolving	eager fast approaching unexpected

7 Complete the sentences with the words in the box.

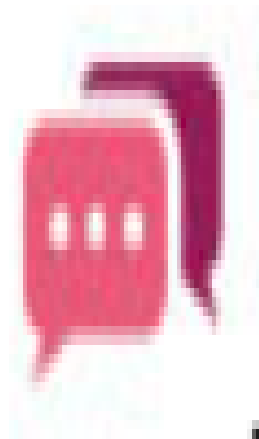
fast major new real sharp

- 1 I find switching over to a new mobile device a real struggle.
- 2 I'm sure we'll see a sharp rise in the use of electric vehicles.
- 3 Quantum computers will be a major breakthrough – computers will be faster than ever.
- 4 Some people say the age of digital money is fast approaching.
- 5 With so many changes, we'll all have to adapt to new circumstances.

8 Complete the questions with words from the quiz in the correct form.

- 1 Are you eager to try a driverless vehicle? Why/Why not?
- 2 Do you know anyone who finds learning to use new technology a real struggle? Is it easy to help them?
- 3 How would you like mobile devices to evolve in the future?
- 4 People say that there have been some mind-blowing changes in technology this century. Do you agree?
- 5 What do you think the next technological advance will be? Will you embrace it? Why/Why not?

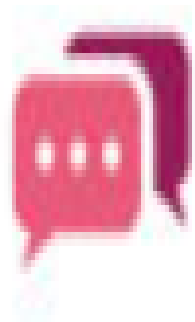
9



Work in pairs. Ask and answer the questions in exercise 8.

10 Watch the video. What is it about?

11



Work in pairs. Discuss the questions.

- 1 This video uses a timeline throughout. Why?
- 2 There are lots of images in this video. Why do you think this is?



A scientific report

1



Work in pairs. How do you think these things will be done in the future?

- a farming and producing food
- b communicating with each other
- c diagnosing and treating illnesses



INNOVATIONS THAT WILL ROCK OUR WORLD

Subskill: Predicting content

Use the title, photos and any general comprehension questions to predict the content of a text. Then read to check your predictions.

2 Look at the report title and photos. Read sentences 1–5. Circle the option you think is correct.

1 By the middle of this century, the world population will have reached ...

☒ **a** just under 10 billion people.

☐ **b** almost 15 billion.

2 ... will check that indoor crops are getting enough light and food to grow.

☐ **a** Farmers

☒ **b** Computers

3 Indoor farming is likely to be ... to the environment than traditional farming.

a more harmful

b less harmful

4 The writer ... we'll be able to keep in touch with our friends without a physical device.

a isn't certain whether

b is sure that

5 Microdevices will be able to treat patients ... of humans.

a without the help

b with the help

In this week's report, we're going to take a look at some rapidly evolving technologies and consider how they might change our lives forever.



High-rise farming and food production

The United Nations predicts that the world population will have reached 9.8 billion by 2050, but our farmland will probably not be able to support the necessary food production. A solution may be to grow crops and raise animals on top of skyscrapers or, alternatively, develop indoor farming using artificial light. The crops will be grown in vertical containers of water rather than soil, and then **fertilized** by the waste products from animals.

Computers will control the process automatically, making sure the plants get the right balance of food and light. This means we'll enjoy a variety of food all year round without relying on the weather or damaging the land further. In the same way, creating meat and seafood by growing **cells** from the muscle of an animal in the laboratory is a fast-approaching reality. This lab-grown or 'clean' meat could mean that we no longer need to **raise** animals on farms. Both advances will help to reduce the impact farming has on the environment.



Communication via wearable screens



You're meeting a friend in town in 15 minutes, but you've missed the bus. The next bus doesn't leave for ten minutes. You're going to be late again. In 2040, you probably won't need to reach for your smartphone: you'll contact your friend through a screen projected onto your arm. What makes us think that? There has been a sharp rise in wearable phones. They're an improvement on smartwatches because you can take calls, swipe through your favorite apps and tap to select one from your wrist. They don't only have voice recognition, but also gesture recognition – you can wave your finger to scroll up or down. And one day, perhaps we'll be able to replace devices with small **implants** under our skin.

Microdevice treatment



Scientists in Switzerland have created a tiny device which looks something like an origami bird. This mind-blowing bird is just a few micrometers long, so it can only be seen under a microscope. Through the use of **magnets**, it can be programmed to move its wings, bend its neck, move its head, hover and turn. How will that improve our lives? Well, in a not-too-distant future, perhaps doctors will be programming these birds to perform medical tasks in the body. For example, one of them could fly through our **blood vessels** killing cancer cells.

5 Complete the sentences with the correct form of some of the words in exercise 4.

- 1 We've used a magnet to get the key out from behind the cupboard.
- 2 My grandpa's tomatoes are fertilized with organic waste from our kitchen.
- 3 Red blood cells carry oxygen around our bodies.
- 4 Our neighbors have always raised chickens in their yard.
- 5 Would you welcome a cell phone implant behind your ear or in your arm?

6 Read the report again and answer the questions.

1 In what ways will indoor farming have less of an impact on the environment?

Crops will grow vertically (so they will need less space); we'll be reusing the waste from animals to fertilize the crops; the creation of meat and seafood from cells in laboratories will mean we won't need to exploit the land.

2 How will scientists create meat in the
by growing cells from the muscle of an animal

3 What are the main differences between the smartphones we use now and the wearable screens we may use in the future?

You can do everything on your wrist or there's no physical device – it's a projected screen controlled by a skin implant and it recognizes gestures.

4 Why are the robot birds such a major breakthrough?

Because they're small enough that they might be able to travel through blood vessels.

7



Work in pairs. Answer the questions.

- 1** Would you eat vegetables grown vertically in water?
- 2** Which of the new kinds of phones would you prefer? Why?
- 3** In your opinion, is research in nanotechnology important?

4 **Word work** Match the definitions to the words in bold in the report.

- 1 pieces of metal that can stick to other metal objects _____
- 2 the smallest parts of a living structure that can operate as independent units _____
- 3 objects that doctors put into someone's body during a medical operation _____
- 4 given a natural or chemical substance in order to grow _____
- 5 tubes inside humans through which blood flows _____
- 6 take care of an animal, sometimes when farming raise

HOMEWORK
from 1 to 5