

# UNIT / 10: SCIENCE AND TECHNOLOGY

## IN THIS UNIT YOU WILL LEARN HOW TO

- identify different types of technology
- paraphrase and reformulate information
- understand factual information in a lecture
- use *will* for future
- describe changes in a graph
- speak about a gadget



### LEAD-IN

**01** Match the technology words in the box with the pictures.

desktop computer   laptop   smartphone   letter  
tablet   landline telephone   smart TV   smart watch

<b>1</b> 	<b>2</b> 	<b>3</b> 	<b>4</b> 
<b>5</b> 	<b>6</b> 	<b>7</b> 	<b>8</b> 

**02** In pairs, discuss when you use the types of technology in Exercise 1. Ask and answer the questions.

- Which one(s) do you use for:
- studying?
  - contacting friends?
  - searching the internet?

*I use my smartphone to contact my friends. I can call or message them.*

### VOCABULARY AND READING

**03** Read the sentences and underline the correct spellings.

- 1 My computer crushed / crashed / crached and I lost my homework.
- 2 You need to shout down / shot down / shut down your laptop when you finish using it.
- 3 There are some excellent wepsites / websites / websides that can help you to study.
- 4 I own three devices / advices / divises – a smartphone, a laptop and a tablet.
- 5 The computers at school are all connected to the same netwalk / netwok / network.

**TIP 03**

It is important that you spell words correctly in exams, otherwise you will lose marks.

**04** Complete the sentences using the correct words in the box.

attachments   backup   download   store   stream

- 1 If you don't know who sent you the email, then it isn't a good idea to open the \_\_\_\_\_.
- 2 I often \_\_\_\_\_ music from the internet.
- 3 You can \_\_\_\_\_ films online a few months after they are released at the cinema.
- 4 You should create a \_\_\_\_\_ of your files, so you don't lose them.
- 5 The *cloud* is the name for the place on the internet where you can \_\_\_\_\_ your files.

**05** You are going to read an article about the internet. Skim the article once quickly. Choose the best title for the article, A, B or C.

- A New developments on the internet
- B How people communicate on the internet
- C Why people use the internet



**1** The internet is still quite a new development in technology, however it is impossible to think about life without it. It works in a very simple way. It takes information and sends it from one computer to another. It is not a difficult job, but it is a very big one. There are hundreds of millions of computers connected to the internet at the same time. However, they don't all do the same thing. Some computers are like a digital box that store information, (like videos or music files) that people see, read or listen to. These stores of information are called servers, and there are three categories.

**2** The first type is a file server, which holds ordinary documents. The second is a mail server for sending and receiving emails. The third is a web server for web pages. We know these servers store information but how do people find this information or send it to each other? For this, you need a client.

**3** A client is a computer that gets information from a server and delivers it to another computer. When you go online on your smartphone, you are using it as a client. When two computers on the internet exchange information, they are known as peers.

**4** Peer-to-peer (P2P) communication is when you send someone a photo on your smartphone. When that person sees this photo, your smartphone is working as the server. It stores the photo and the other person's device is the client, which searches for your information. It then displays the photo on the other person's screen.

**06** Read the article again in Exercise 5. Then, look at the information from the article and complete the paraphrased sentences using ONE to THREE words.

Example:

**0 Paragraph 1:** *It takes information and sends it from one computer to another. It is not a difficult job, but it is a very big one.*

Sending information from one computer to another is an easy job.

**1 Paragraph 1:** *There are hundreds of millions of computers connected to the internet at the same time. However, they don't all do the same thing.*

All the computers connected to the internet are doing \_\_\_\_\_ at the same time.

**2 Paragraph 2:** *The second is a mail server for sending and receiving emails. You can send and receive emails \_\_\_\_\_ server.*

**3 Paragraph 3:** *A client is a computer that gets information from a server and delivers it to another computer.*

The client \_\_\_\_\_ from one computer to another using a server.

**4 Paragraph 3:** *When you go online on your smartphone, you are using it as a client. Your smartphone becomes the client when you use it \_\_\_\_\_.*

**5 Paragraph 4:** *When that person sees this photo, your smartphone is working as the server. It stores the photo and the other person's device is the client, which searches for your information.*

The client finds the photo by \_\_\_\_\_ from the server, which stores it.



In some exam questions, you will need to complete a sentence using one to three words. The sentence you need to complete rewrites the information from the text in different words. This is called paraphrasing. Paraphrasing is reading something, thinking about its meanings and putting it in your own words.

**TIP 06**

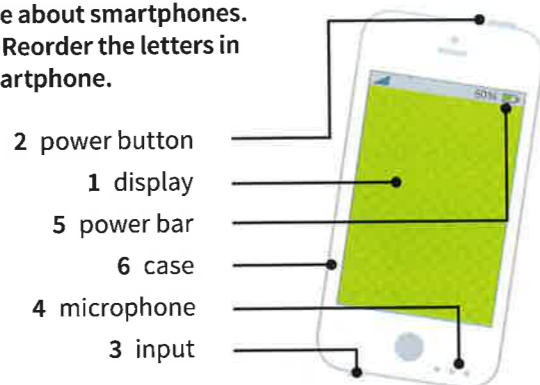
Paraphrasing is important as you will need to understand it in Reading, Listening, Speaking and Writing exams.

**06.0 MINI TIP** The opposite of difficult is easy. The sentences use different words but they mean the same.

**06.1 MINI TIP** What is the opposite of the word 'same'?

**LISTENING 1: A LECTURE**

**07** You are going to listen to a short lecture about smartphones. Before you listen, look at the diagram. Reorder the letters in brackets to complete the parts of a smartphone.



Parts of a smartphone	Reason for these parts
1 touch screen or d _____ (SLPIYA)	1 To _____.
2 p _____ b _____ (REWO / TOTNU)	2 To turn the phone _____.
3 USB i _____ (TUPN)	3 To _____ or to _____.
4 m _____ (RENOPICHO)	4 To _____ when you phone someone.
5 p _____ b _____ (WORE / RA)	5 To _____.
6 c _____ (SAE)	6 To _____.

**08.2 MINI TIP** You need three words here to say both of the things it does.

**08.2 MINI TIP** You need to be careful with spelling. You will get the answer wrong if you spell the word incorrectly.

**08** Listen to Part 1 of the lecture. Complete the second column in the table with reasons why a smartphone has each part using TWO to THREE words.

**09** Listen to Part 2 of the lecture and complete the table.

Year	% of population with smartphones
2010	1
2015	2
2020	3
2025	4

**GRAMMAR AND VOCABULARY**

**10** In Listening 1, the lecturer talked about what he thinks is definite or probable in the future. Listen again to Part 2 in Exercise 9 and complete the tables.

	Person / Thing	will, will not / won't	Verb (infinitive without to)	
For positive statements	1 _____	2 _____	3 _____	richer than they are now.
For negative statements	4 _____	5 _____	6 _____	the same as the one in the picture today.
	will, will not / won't	Person / Thing	Verb (infinitive without to)	
For questions	7 _____	8 _____	9 _____	the same as they do now?
	Question word	will, will not / won't	Person / Thing	Verb (infinitive without to)
Or	10 _____	11 _____	12 _____	13 _____ like?

**11** Read part of a student's end-of-year school report. Do you think he will be happy with it?

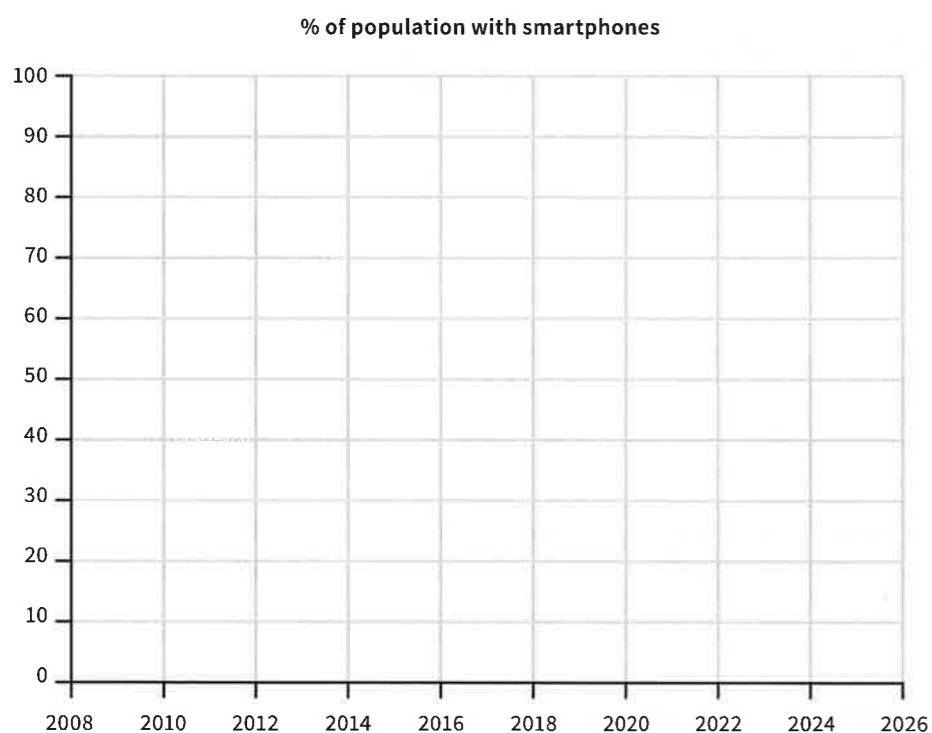
**Michael Brown** **END-OF-YEAR SCHOOL REPORT**

Michael's result in maths improved. His score was 74% at the start of the year and *increased* to 82% by the end of the year. His English grade also *went up* from a C to an A, so this was very good. However, his science result *fell* by 6%, from 92% to 86%. There was also *a decrease* in his business score (78% to 72%). Hopefully, these will *rise* again next year.

**12** Look again at the school report. Michael's teacher has used different words to describe changes. Complete the information in the chart using the words in the school report.

Verb (infinitive)	Verb (past)	Noun
1 _____	2 _____	a rise
3 _____	increased	4 _____
5 _____	went up	-
6 _____	fell	7 _____
8 _____	9 _____	a decrease
to go down	10 _____	-

**13** Look again at the information in the table in Exercise 9. Draw a line on the axis below to show the percentage (%) increase of the population with a smartphone between 2010 and 2025.



**14** Now, read the short description and choose the correct answer, A, B or C.

The percentage of people with smartphones 0 A 1 38% in 2010 2 \_\_\_\_\_ 62% in 2015. In the future, this 3 \_\_\_\_\_ will 4 \_\_\_\_\_. At the end of the period in 2025, this percentage will 5 \_\_\_\_\_ on 86%.

- |                 |             |              |           |
|-----------------|-------------|--------------|-----------|
| 0 A increased   | B increase  | C increasing | Answer: A |
| 1 A at          | B from      | C to         |           |
| 2 A to          | B by        | C at         |           |
| 3 A rised       | B rose      | C rise       |           |
| 4 A to continue | B continue  | C continuing |           |
| 5 A finish      | B finishing | C be finish  |           |

**TIP 12**

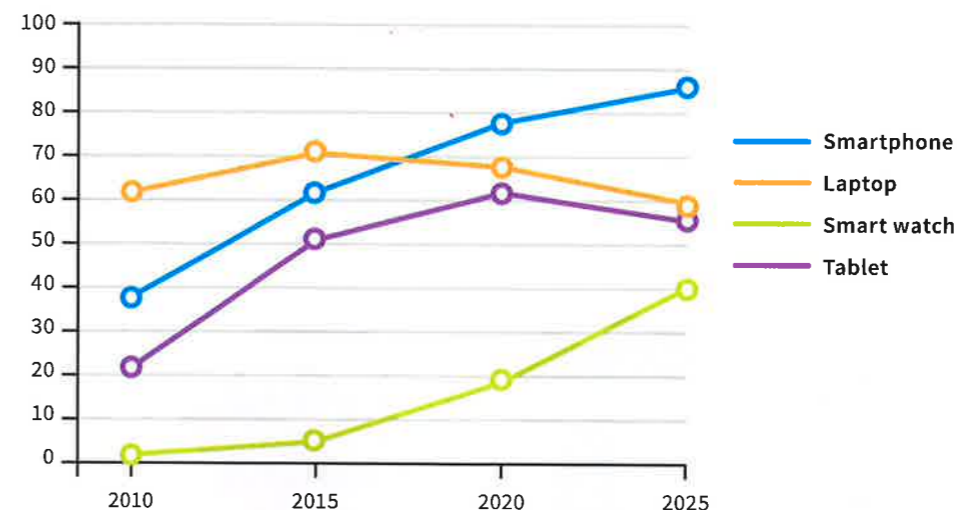
The vocabulary in blue and red is useful when you want to describe changes, especially when numbers get bigger or smaller. Use a dictionary to check words you are unsure about.

**WRITING: DESCRIBING A GRAPH**

**15** Look at the line graph and use the language in Exercise 12 to describe the way each line in the graph changes.

- Smartphone: \_\_\_\_\_
- Laptop: \_\_\_\_\_
- Smart watch: \_\_\_\_\_
- Tablet: \_\_\_\_\_

Percentage of people who own the devices from 2010 to 2025.



**16** In pairs, compare your answers to Exercise 15.

**LISTENING 2 AND GRAMMAR**

**17** You are going to listen to a student, Lorenzo, answer a question about technology. Read the question and listen to Lorenzo's answers.

**20** Describe a piece of technology that you would like to buy in the future.

**18** Look again at Lorenzo's answers and the underlined words in the listening script. Then, match the underlined words in Lorenzo's answers with the definitions.

- Important and interesting parts of a device. \_\_\_\_\_
- The newest device you can buy. \_\_\_\_\_
- To move your finger from one side to the other on a device. \_\_\_\_\_
- A device that is old. \_\_\_\_\_
- The part of a device that stores data. \_\_\_\_\_

**19** Listen again and match the questions with Lorenzo's answers. Write 1-4 next to the questions. There are two extra questions.

- 20**
- How will it make your life better? \_\_\_\_\_
  - How much does it cost? \_\_\_\_\_
  - Where do you want to buy it from? \_\_\_\_\_
  - What does it look like? \_\_\_\_\_
  - Why do you want to buy it? \_\_\_\_\_
  - Why is it so popular? \_\_\_\_\_

**SPEAKING: DESCRIBING A GADGET**

**20** In pairs, you are going to talk about the same topic as Lorenzo in Exercise 17. Choose four of the questions in Exercise 19 that you could answer. Then, complete the sentences.

Describe a piece of technology that you would like to buy in the future.

- 1 You should say \_\_\_\_\_
- 2 And you should say \_\_\_\_\_
- 3 You also need to say \_\_\_\_\_
- 4 And don't forget to tell me \_\_\_\_\_



**GO FURTHER  
ONLINE**

**21** Now, in pairs, swap your books with your choice of questions. You are going to answer your partner's questions. You have two minutes to prepare what you are going to say.

**22** When you are ready, decide who is going to go first. You each have one minute to give your talk about the piece of technology you have chosen.



**UNIT / 10**

**GRAMMAR AND VOCABULARY**

**01** Read the sentences and underline the correct answer.

- 1 My brother **streams** / **stores** his files on his computer but doesn't back them up.
- 2 You can connect a series of computers together on a **website** / **network**.
- 3 I prefer to use a **laptop** / **desktop** computer as I can work from anywhere.
- 4 Stop playing games! **Shut down** / **Crash** your computer right now!
- 5 I don't like paying a lot of money for **attachments** / **apps**, but it can cause problems if you only **download** / **backup** them for free.

**02** Complete the sentences using the words in the box.

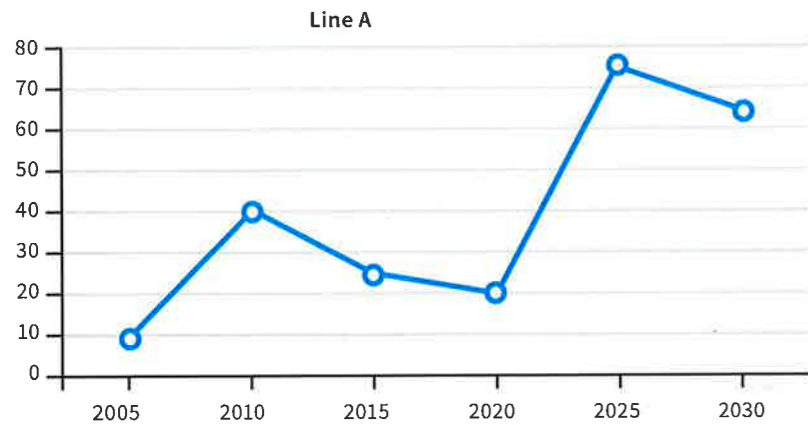
stream website device crash attachment backup

- 1 A set of pages of information on the internet about a particular subject. \_\_\_\_\_
- 2 A copy of the files from your computer that you keep in a different place. \_\_\_\_\_
- 3 A machine, like a smartphone, that can connect to the internet. \_\_\_\_\_
- 4 A file, like an essay, that you add to an email before sending it. \_\_\_\_\_
- 5 This happens when your computer suddenly stops working. \_\_\_\_\_
- 6 Music or video that you watch on the internet without downloading it first. \_\_\_\_\_

**03** Complete the interview using the words.

- A** How 0 will people travel (people / travel) around in the future?
- B** In cars that don't have anybody driving.
- A** Isn't that dangerous?
- B** No, the cars 1 \_\_\_\_\_ (communicate) with each other and make sure they all have enough space on the road.
- A** That's amazing!
- B** Yes, it is. There 2 \_\_\_\_\_ (are not) any crashes ever again.
- A** 3 \_\_\_\_\_ (the cars / able to) to fly?
- B** Maybe - I can certainly imagine a mix of a car and an aeroplane.
- A** And food - what 4 \_\_\_\_\_ (people / eat)?
- B** Similar meals to the ones we eat today, but with a lot less meat.
- A** Why is that?
- B** Well, in the future, if we want to continue to eat as much meat as we do now, we 5 \_\_\_\_\_ (definitely need) more space for animals than we actually have on the planet.
- A** I see. Maybe we could build farms on the moon?
- B** Hmm ... I'm not sure that 6 \_\_\_\_\_ (be) possible.
- A** Why not? It's a great idea!
- B** Well, how 7 \_\_\_\_\_ (the animals / breathe) when they are on the moon?

**04** Look at the graph and read the sentences. Describe which part of this graph does each sentence refer to? There are extra sentences.



- 1 It increased from 10% to 40%.
- 2 This rise will continue after 2025.
- 3 It decreased by 15%.
- 4 It fell by 30%.
- 5 It will finish on 65%.
- 6 It went up from 40% to 50%.
- 7 It will fall again after 2020.
- 8 There will be a rise of 55%.
- 9 It went down by 5%.
- 10 There was an increase of 35%.

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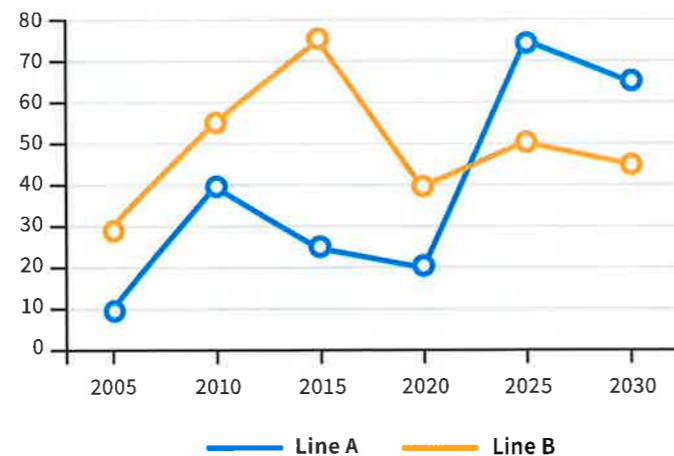
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**05** Complete the description of the changes to Line B in the graph using the words in the box.

fall down rise decrease went increased 2020 55% 50% 2015 40% 2005

After it 1 \_\_\_\_\_ from 30% in  
 2 \_\_\_\_\_ to 3 \_\_\_\_\_ in  
 2010, line B 4 \_\_\_\_\_ up by another  
 20% between 2010 and 2015. This was its highest  
 point. It started to 5 \_\_\_\_\_ in 2015,  
 going 6 \_\_\_\_\_ to 40% in  
 7 \_\_\_\_\_. It will 8 \_\_\_\_\_  
 to 50% in 2025, and then will 9 \_\_\_\_\_  
 to 45% in 2030.



**06** Which is the best summary A, B or C for this graph in Exercise 5?

- A Both lines went up and down a lot. Line A changed much more than Line B.
- B The biggest changes for Line A will happen in the last ten years shown on the graph. However, Line B had its own most important changes earlier, especially between 2005 and 2015.
- C Line A went up to 40% in 2010, then down to 20% by 2020, and then up to 75% in 2025 and back down to 65%, so there was a lot of change. Line B increased to 75% in 2015, then went down to 40% in 2020, so a lot of change there as well. It didn't change much after that, only up by 10% and then down by 5%.

**07** Read an email from a grandfather to his teenage grandson and underline the correct answers.

Reply Forward

To: Richard  
From: Grandad

Hello Richard,

I have some news – **1 I will / I'm going to / I going to** buy a smartphone. Your mum told me that you have the **2 latest model / later modern / late model**, but I don't need anything that good. In fact, I don't mind if it's a bit **3 out of order / out of time / out of date** – I'll be happy with something a bit older, like me! I see a lot of advertisements for phones with great **4 features / devices / websites**, but I don't need most of them. I just want to make calls and play some card games. It will be strange to play cards by **5 swiping / sweeping / swapping** a **6 charger / screen / case**. Your mother also said that your smartphone has a lot of **7 memory / memories / memry**. What does that mean? Let me guess – I think it probably means that you have a lot of space to **8 stand / store / shop** apps and files and things. I'm learning already! Anyway, I know your phone has a silver **9 case / screen / battery** but I would prefer mine in black.

Can you help me to look online and find one?

Thanks!

Grandad

**GO FURTHER ONLINE**