Unit 4 It was all new once



Starting off

Work in small groups.

1 Name each of the inventions in the photos.
2 How has each of them changed people's lives?

Vocabulary

What type of word is it? 1

When dealing with a difficult word in a passage, it helps to decide what type of word it is: noun, verb or adjective.

1 Work in pairs.

1 Find and underline these two words in the reading passage on page 38 and decide what type of word each is. What helped you decide?

moisture *cited*

2 Match them with these definitions from the *CLD*.

a very small drops of water in the air or on a surface
b to mention something as an example or proof of something else

page 123 *Deciding the type of word*

2 Work in pairs. Underline these words (1–6) in the passage. Then decide what type of word each one is and match them with their definitions from the *CLD* (a–f).

	type of word		definition
1	design	verb	a large factory where an industrial process happens
2	plant		b piece of equipment th is used for a particula purpose
3	device		c one of the things that an effect on a particul situation
4	spread		d the amount of someth that is produced
5	output		e draw or plan somethi before making it
6	factor		f increase to cover a lar area

LIVEWORKSHEETS

Reading 1
Multiple choice

1 Work in small groups. You are going to read a passage about air conditioning.

1 How important is air conditioning in your country?
2 Why is it important to have comfortable places to work and study?

2 Read the passage quickly. Who is/was:

1 Willis Carrier? 2 Jed Brown?

Air conditioning

The history of an invention that makes life more pleasant

Willis Carrier designed the first air-conditioning unit in 1902, just a year after graduating from Cornell University with a Masters in Engineering. At a Brooklyn printing plant, fluctuations in heat and moisture were causing the size of the printing paper to keep changing slightly, making it hard to align different colours. Carrier's invention made it possible to control temperature and humidity levels and so align the colours. The invention also allowed industries such as film, processed food, textiles and pharmaceuticals to improve the quality of their products.

In 1914, the first air-conditioning device was installed in a private house. However, its size, similar to that of an early computer, meant it took up too much space to come into widespread use, and later models, such as the Weathermaker, which Carrier brought out in the 1920s, cost too much for most people. Cooling for human comfort, rather than industrial need, really took off when three air conditioners were installed in the J.L. Hudson Department Store in Detroit, Michigan. People crowded into the shop to experience the new invention. The fashion spread from department stores to cinemas, whose income rose steeply as a result of the comfort they provided.





To start with, money-conscious employers regarded air conditioning as a luxury. They considered that if they were paying people to work, they should not be paying for them to be comfortable as well. So in the 1940s and '50s, the industry started putting out a different message about its product: according to their research, installing air conditioning increased productivity amongst employees. They found that typists increased their output by 24% when transferred from a regular office to a cooled one. Another study into office working conditions, which was carried out in the late '50s, showed that the majority of companies cited air conditioning as the single most important contributor to efficiency in offices.

However, air conditioning has its critics. Jed Brown, an environmentalist, complains that air conditioning is a factor in global warming. Unfortunately, he adds, because air conditioning leads to higher temperatures, people have to use it even more. However, he admits that it provides a healthier environment for many people in the heat of summer.

LIVEWORKSHEETS

3 **Read Questions 1–5 and underline the key ideas. Do not read the options yet.**

Questions 1–5

1 When Willis Carrier invented air conditioning, his aim was to
   - **A** make workers feel cooler.
   - **B** produce more attractive paper.
   - **C** set up a new business.
   - **D** solve problems in a factory.

2 Home air conditioners were not popular at first because they were
   - **A** too big and expensive.
   - **B** not considered necessary.
   - **C** too inefficient.
   - **D** complicated to use.

3 Employers refused to put air conditioning in workplaces at first because they
   - **A** could not afford to pay for it.
   - **B** thought it was more suitable for cinemas.
   - **C** did not want to spend money improving working conditions.
   - **D** thought people would not work so hard in comfortable conditions.

4 What was the purpose of the research done in the 1940s and '50s?
   - **A** to make office workers produce more
   - **B** to compare different types of air conditioner
   - **C** to persuade businesses to buy air conditioners
   - **D** to encourage employees to change offices

5 What does Jed Brown say about air conditioning?
   - **A** In future, everyone will need it.
   - **B** Turning it off will not reduce global warming.
   - **C** It can seriously damage people's health.
   - **D** It is good for people, but bad for the environment.

4 **Now read the passage and find where each question is dealt with. Then read that part carefully and choose the correct option: A, B, C or D.**

Exam advice *Multiple choice*

- Underline the key idea in the question.
- Find the part of the passage which deals with the key idea and read it carefully.
- Choose the option which matches the information in the passage.

5 **Work in small groups. Apart from air conditioning, what other inventions have made your life more comfortable? In what ways?**

Listening

Sentence completion, Pick from a list



1 **Work in pairs. You are going to listen to a woman, Irina, talking to a man at the ticket desk at an exhibition.**

1 Have you ever been to an exhibition? If so, what did it show, and what did you like and dislike about it?
2 What sort of exhibitions might interest you? Why?

2 **Look at Questions 1–6 below.**

1 How many sections are mentioned?
2 Which questions relate to which sections?
3 Underline the key ideas in each sentence.

Questions 1–6

Electronics exhibition

1 The first section deals with electronics designed to ..... the environment.
2 One new device is for checking ..... temperatures at different levels.
3 The theme of the second section is children and their ..... .
4 There are a number of inventions to avoid an ..... in the home.
5 They demonstrate a device for checking if older children are at ..... .
6 The third section contains devices for dealing with ..... .

LIVEWORKSHEETS

3 (22) **Listen and complete Questions 1–6 in Exercise 2. Write ONE WORD for each answer.**

Exam advice *Sentence completion*

- Underline the key idea(s) in each sentence and think what information you need to complete the sentences.
- Listen and write the words when you hear them.

4 **Look at Questions 7–10 below. Underline the key ideas in each question.**

Questions 7–10

7 Which TWO reasons does Irina give for visiting the exhibition?
- **A** to meet a friend
- **B** to improve her knowledge
- **C** to buy something
- **D** to check prices
- **E** to entertain her child

8 Which TWO devices has Irina bought recently?
- **A** a calculator
- **B** a computer
- **C** a camera
- **D** a phone
- **E** a digital recorder

9 What TWO things does Irina like about the building?
- **A** the electric lights
- **B** the space
- **C** the activity
- **D** the ceiling
- **E** the entrance

10 Which TWO problems did Irina have coming to the exhibition?
- **A** driving in heavy traffic
- **B** finding the car park
- **C** parking the car
- **D** waiting to enter the exhibition
- **E** standing outside in the rain

5 (23) **Now listen. Choose TWO letters A–E for each question (7–10) in Exercise 4.**

Exam advice *Pick from a list*

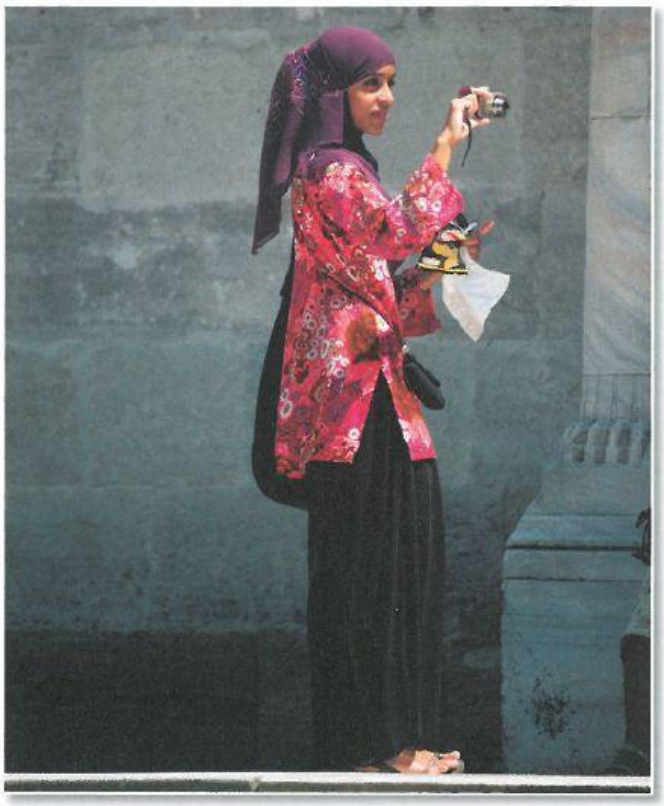
- Underline the key idea in each question.
- Listen carefully: you may hear something about the wrong answers as well as the correct answers, and the speakers may not use the same words as in the questions.

6 **Work in pairs.**

1 What electronic devices interest you? Why?
2 What electronic devices would you like to buy in the future?

Speaking

Part 2



1 **Work in pairs. Look at this Speaking task and decide which device each of you will find it easiest to speak about for two minutes.**

Describe an electronic device you use often.
You should say:
how long you have had it
how often you have used it
what you have used it for
and explain why you use it so often.

LIVEWORKSHEETS

2 (24) **Work in pairs. You are going to hear a student, Amani, doing the Speaking task in Exercise 1. Before you listen, match the beginnings and endings of these sentences. Then check your answers by listening to Amani.**

1	Actually, I've got it here **because** ...	**a**	I just point it and press the button.
2	Everything is automatic, **so** ...	**b**	I put all the photos on my computer.
3	I didn't ask for a camera, **so** ...	**c**	in July I went on holiday to Denmark and Sweden.
4	I've carried it with me everywhere I've gone on holiday. **For example,** ...	**d**	it was a complete surprise.
5	I've taken lots of photos of special occasions. **For instance** ...	**e**	it's easy to use and I carry it everywhere.
6	I use it to remember things, **so** ...	**f**	it's very small and fits in my bag.
7	Then I upload them onto Facebook, **so** ...	**g**	my friends can see them.
8	I've used the camera so often **because** ...	**h**	when my grandmother was 70, I took photos of her party.

3 **Which words in bold in sentence beginnings 1–8 in Exercise 2 introduce:**

1 a reason? 2 an example? 3 a consequence?

Pronunciation: *Chunking 1*
page 42 Key grammar: *Present perfect*

4 **Work alone. Make notes for the Speaking task in Exercise 1. Then work in pairs. Take turns to give your talks.**

5 **Work alone. Make notes for this Speaking task.**

Describe something you own which has improved your life.

You should say:

how long you have had it

when you use it

what it looks like

and explain how it has improved your life.

6 **Work in pairs and take turns to give your talks for the task in Exercise 5.**

Exam advice *Speaking Part 2*

- To keep speaking for two minutes, you have to add extra information, so give reasons and examples, explain consequences and describe things.
- Use your own words: don't just repeat the words in the task.

Pronunciation

Chunking 1

We say words in groups and we pause or hesitate between these groups. Forming groups of words when we speak is called *chunking*. There are no rules about when to pause, but some places are more natural than others. Chunking makes you easier to understand.

1 (25) **Listen to part of Amani's answer again. Mar with / where the speaker pauses.**

I've had this camera / for two years. My parents gave it to me for my birthday when I was 18. I didn't ask for a camera, so it was a complete surprise, but it's been really useful.

2 (26) **Work in pairs. Read this extract from Aman answer and decide where she should pause. The listen and check your answer.**

Since I got the camera, I've carried it with me everywhere I've gone on holiday. For example, in July I went on holiday to Denmark and Sweden. They're lovely places, and in summer it's still light at midnight, so I got some great photos there.

3 **Work in pairs. Take turns to read the extracts from Exercises 1 and 2 aloud with pauses.**

4 **Work alone. Write three or four sentences abou an electronic device you have used often and put / where you should pause.**

5 **Work in pairs and take turns to read your sentences.**

LIVEWORKSHEETS

Key grammar
Present perfect

The present perfect is formed with *have* + past participle (*done*, *opened*, *eaten*, etc.):
I've had this camera for two years.

1 Look at the extract in blue from Amani's talk in the recording script on page 163 and underline the verbs in the present perfect.

2 Match these uses of the present perfect with the examples you underlined in Exercise 1.

We use the present perfect for something which:
1 started in the past and continues in the present.
2 happened in the past, but we don't say an exact time in the past.

page 124 *Present perfect*

3 Complete these sentences by putting the verbs in brackets into the present perfect.

1 The number of people using mobile phones has risen (*rise*) by 500 percent since 2003.
2 The invention of electronic books ..... (*change*) the way many people read.
3 Since I started using email, I ..... (*not write*) a traditional letter.
4 I ..... (*forget*) the word which means 'in the middle of the night'.
5 The library ..... (*become*) much more comfortable since they installed air conditioning.
6 It is a device to help people find keys which they ..... (*lose*).

4 IELTS candidates often make mistakes with the present perfect. Find and correct the mistakes in these sentences.

1 In recent years, life ~~changed~~ has changed and it's not like it was in the past.
2 In the last few years, new technologies has brought enormous benefits.
3 In recent years, there are many problems arising regarding things you can find on the Internet.
4 With the rapid progress of science and technology, there are a lot of changes in the world.
5 During the last few years, money become more important as a way of satisfying our needs.

5 Look at these two sentences from Amani's talk and answer the questions below.

I've had this camera for two years.
I've taken more than a thousand photos since July.

Which preposition (*for* or *since*) is used to say:
1 the length of time (a number of days or weeks or years, etc.)?
2 from a specific time in the past (a day, a month, etc.) until now?

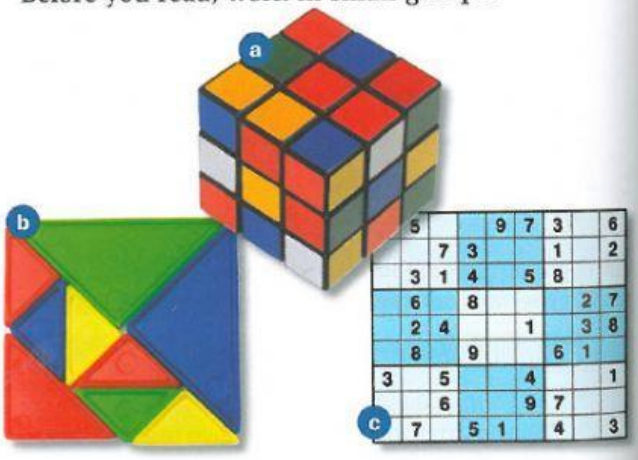
page 124 for *and* since

6 Complete these sentences by writing *for* or *since* in each gap.

1 I've had this mobile phone ...for... six months.
2 I was given this touchscreen computer for my birthday, so I've had it ..... March.
3 He's been in Australia ..... almost a year.
4 She hasn't taken any photos ..... last summer.
5 She hasn't phoned me ..... the meeting.
6 Ali hasn't done any homework ..... three weeks.

Reading 2
Summary completion

1 You are going read a passage about Rubik's Cube. Before you read, work in small groups.



1 Match the puzzles above (a–c) with their names (1–3).
1 Chinese tangram 2 sudoku 3 Rubik's Cube
2 What do you have to do in each puzzle?
3 Are any of these puzzles popular in your country?
4 Do you enjoy doing any of these puzzles? Why? / Why not?

LIVEWORKSHEETS

2 **Read the passage below quickly.**

1 When did Rubik start working on his Cube?
2 When did it become a success?

3 **Underline these words (1–6) in the passage. Then decide what type of word each is and match them with their definitions from the *CLD* (a–f).**

1	preliminary *adjective*	a	break into pieces
2	fall apart	b	build something by joining parts together
3	attempt	c	done or happening in order to prepare for the main event or activity
4	assemble	d	the purpose of something
5	experiment	e	try something in order to discover what it is like
6	object	f	try to do something, especially something difficult

Rubik's Cube

How the puzzle achieved success

Erno Rubik first studied sculpture and then later architecture in Budapest, where he went on to become a teacher of interior design. It was while he was working as a teacher that he began the preliminary work on an invention that he called the 'Magic Cube'.

Rubik was inspired by geometric puzzles such as the Chinese tangram, a puzzle consisting of various triangles, a square and a parallelogram which can be combined to create different shapes and figures. However, unlike the tangram, which is two-dimensional, Rubik was more interested in investigating how three-dimensional forms, such as the cube, could be moved and combined to produce other forms.

His design consisted of a cube made up of layers of individual smaller cubes, and each smaller cube could be turned in any direction except diagonally. To ensure that the cubes could move independently, without falling apart, Rubik first attempted to join them together using elastic bands. However, this proved to be impossible, so Rubik then solved the problem by assembling them using a rounded interior. This permitted them to move smoothly and easily. He experimented with different ways of marking the smaller cubes, but ended up with the simple solution of giving a different colour to each side. The object was to twist the layers of small cubes so that each side of the large cube was an identical colour.

Rubik took out a patent for the Cube in 1977 and started manufacturing it in the same year. The Cube came to the attention of a Hungarian businessman, Tibor Laczi, who then demonstrated it at the Nuremberg Toy Fair. When British toy expert Tom Kremer saw it, he thought it was amazing and he persuaded a manufacturer, Ideal Toys, to produce 1 million of them in 1979. Ideal Toys renamed the Cube after the toy's inventor, and in 1980, Rubik's Cube was shown at toy fairs all over the world. It won that year's prize in Germany for Best Puzzle. Rubik's Cube is believed to be the world's best-selling puzzle; since its invention, more than 300 million Cubes have been sold worldwide.

4 **Work in pairs. Look at the summary below. Read around the gaps and decide what type of word and what information you might need for each gap.**

Rubik's Cube

Originally named the **1** ....., Rubik's Cube consists of a number of smaller cubes organised in **2** ..... . The smaller cubes can be twisted in almost any way, though not **3** ..... . The Cube's **4** ..... is shaped in a way that allows the smaller cubes to move smoothly. Each side of the smaller cubes has a different colour, and the aim of the puzzle is to organise the cubes so that the colours on the sides of the large cube are **5** ..... .

The manufacturers of the puzzle changed the name of the Cube to the name of its **6** ..... . It has now sold more than any other **7** ..... in the world.

5 **Now complete the summary. Choose NO MORE THAN TWO WORDS from the passage for each answer.**

Exam advice *Summary completio*

- Read the summary carefully first: decide what informatio and what type(s) of word yo need for each gap.
- When you have completed the summary, read it again t check it makes sense.

LIVEWORKSHEETS

Writing

Task 2



1 Work in small groups. Read this Writing task and underline the key ideas. Then discuss the questions below.

Write about the following topic.

As a result of electronic inventions such as the computer and television, people do less physical activity, and this is having a negative effect on their health.

To what extent do you agree or disagree?

Give reasons for your answer and include any relevant examples from your own knowledge or experience.

1 Do you agree that people do less physical activity than in the past? Why? / Why not?
2 What areas of people's lives have modern inventions affected in this way?
3 If you agree that people do less physical activity, do you agree that this has had a negative effect on their health?
4 Do you think people who do physical work or do a sport have better health than other people?
5 How might working with computers or watching television affect people's health? Think about these things: eyes, weight, heart and muscles.

2 Work in pairs. These sentences were written by different IELTS students as part of their answers to the Writing task in Exercise 1. Which sentences do you think are relevant (R) and which are irrelevant (I)? Why?

1 For young people, computers have become a more popular form of entertainment than television.
I (It's not related to people's health.)
2 As far as work is concerned, office employees have always worked sitting down and the introduction of computers has not changed that.
3 Generally, people like working with computers, so they find their work more enjoyable.
4 However, people have also put on weight because they eat more food than in the past, so we should not blame modern inventions for everything.
5 For example, lifestyles have become more hygienic, people do not catch so many infections and they live longer.
6 As a result, sportspeople have become fitter and they continue to break records.

3 Read this sample answer to the Writing task in Exercise 1. Then answer the questions on page 45.

There is no doubt that modern electronic inventions have transformed people's jobs and their leisure time, so that many people spend less time taking exercise. However, it is not so certain that this has damaged their health.

As far as work is concerned, office employees have always worked sitting down, and computers have not changed that. Computers have not affected physical jobs such as farming or building either, and people still do physical work like they did in the past. In fact, other machines such as washing machines and tractors, not computers, have reduced the amount of physical work people do.

On the other hand, the way people spend their spare time has changed greatly. People spend many hours watching television and playing with their computers, so they do not do so much physical exercise. This is one of the things which has made more people overweight, and this affects their health when they are older.

However, people have also put on weight because they eat more food than in the past, so we should not blame modern inventions for everything. What is more, new technologies have led to better medicine, and as a result people live longer.

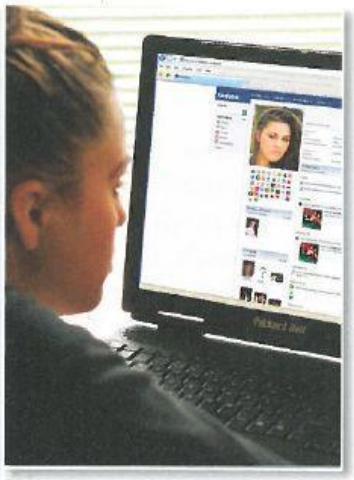
In conclusion, I believe that generally people live more healthily now. In my view, it is difficult to argue that modern inventions have had a harmful influence on our health. On the other hand, we need to make sure that we still take a reasonable amount of exercise.

LIVEWORKSHEETS

Which paragraph:

1 summarises the writer's opinions?
2 introduces the subject and says what the writer agrees with and what she disagrees with?
3 mentions other factors which affect people's health?
4 says to what extent the writer agrees with the idea that computers have changed the way people work?
5 says to what extent the writer agrees that computers and television have changed the way people spend their free time, and how this has affected their health?





4 Work in pairs. Underline the key ideas in this Writing task. Then answer the questions below.

Write about the following topic.

Modern forms of communication such as email and messaging have reduced the amount of time people spend seeing their friends. This has had a negative effect on their social lives.

To what extent do you agree or disagree?

Give reasons for your answer and include any relevant examples from your own knowledge or experience.

1 How did people communicate with friends in the past? How do they communicate now? Has this changed?
2 Do you agree that people don't see their friends so much? If so, do you agree that things like email and messaging have caused this, or has something else caused it?
3 Do you think that people's social lives have got better or worse than in the past? If you think their social lives have got worse, is this a result modern forms of communication?
4 Do you use these methods of communication? How do they affect your social life?

Now change partners and compare your ideas.

5 Work alone.

1 Decide how many paragraphs your answer to th Writing task in Exercise 4 will have.
2 Write down the purpose of each paragraph (as i Exercise 3).

When you have finished, compare your ideas with a partner's.

6 Work alone and write your answer. You should write at least 250 words.

Exam advice *Writing Task 2*

- Think through the question carefully before you make your plan.
- Make sure that everything you write is relevant to the question.

Spelling

Using and misusing double letters

1 IELTS candidates often use single and double letters wrongly. Work in pairs and correct the spelling of these words.

1 ofice 2 siting 3 afected 4 physicall
5 beter 6 generaly 7 dificult 8 harmfull

Check your answers by looking at the sample answer in Writing Exercise 3.

2 Work in pairs. Choose the correct spelling of each of these words from this unit.

1 (efficiency)	eficiency
2 instaled	installed
3 anoyed	annoyed
4 atractive	attractive
5 atention	attention
6 apart	appart
7 sucessfuly	successfully
8 diferent	different
9 benefit	benefitt
10 attempted	atempted
11 apearrance	appearance
12 comunicate	communicate

LIVEWORKSHEETS