# 3 Environmental problems

Α

#### The problems and their causes

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A variety of environmental problems now affect our entire world. As **globalisation**<sup>1</sup> continues, local issues become international ones, so today there are few places in the world that do not suffer from environmental problems. Some of the major problems now affecting the world are acid rain<sup>2</sup>, air pollution<sup>3</sup>, global warming<sup>4</sup>, hazardous<sup>5</sup> waste, ozone depletion<sup>6</sup>, smog<sup>7</sup>, water pollution, overpopulation, and rainforest destruction<sup>8</sup>. People are also worried about the greenhouse effect, where an increase in the amount of carbon dioxide [CO<sub>2</sub>] and other gases<sup>9</sup> in the Earth's



smog

atmosphere<sup>10</sup> causes a gradual warming of the surface of the Earth. This global warming is leading to the thawing of the **polar ice caps**<sup>11</sup> and all this is causing concern about **climate change**. Both human behaviour and climate change have led to many animal and plant **species**<sup>12</sup> becoming **endangered**<sup>13</sup> or even **extinct**<sup>14</sup>.

<sup>1</sup> increasing business, cultural and other contacts between countries <sup>2</sup> rain which contains harmful chemicals as a result of burning substances such as oil and coal [acid = a type of liquid that reacts chemically with other materials, sometimes dissolving them] <sup>3</sup> damage caused to the air by harmful substances or waste <sup>4</sup> rise in the world's temperature <sup>5</sup> dangerous <sup>6</sup> reduction in the ozone layer [layer of air above the Earth containing ozone which prevents harmful ultraviolet light from the sun from reaching Earth] <sup>7</sup> air pollution found in cities caused by a mixture of smoke, gases and chemicals (the word has been formed from smoke + fog) <sup>8</sup> destroying (cutting down) forest in a tropical area which receives a lot of rain <sup>9</sup> substance in a form that is neither solid nor liquid <sup>10</sup> the mixture of gases around the Earth <sup>11</sup> ice covering the areas at the North and South Poles <sup>12</sup> types <sup>13</sup> very few in number, at risk of becoming extinct <sup>14</sup> not existing any longer

## Language help

The prefix *over*- means *too much*. *Overfishing* means that people have fished so much that it is having a serious effect on fish populations. *Overpopulated* means there are so many people living in an area that life is difficult there.

B

C

#### Dealing with the problems

Worldwide efforts are being made to improve the situation. Green parties and green or ecological policies are mainly concerned with protecting the environment. Conservation organisations are developing nature reserves where plants and animals are protected. Farmers increasingly produce organic food, which avoids the use of harmful chemicals. More companies try to behave in a way that is environmentally friendly or ecologically sound. Societies attempt to dispose of waste in a more responsible way, by, for example, recycling as much as possible. People aim to reduce their carbon footprint by using cars less so that they cut down on their use of fossil fuels, for example.

#### Word families

noun	verb	adjective	adverb
globalisation	globalise	global	globally
environment, environmentalist		environmental	environmentally
pollution, pollutant	pollute	polluting	
destruction	destroy	destructive	destructively
disposal	dispose	disposable	
reduction	reduce	reduced	

#### 23.1 Answer each question, using a word or expression from the box.

acid rain carbon dioxide endangered species extinct global warming globalisation hazardous waste ozone layer polar ice caps destruction of rainforests smog water pollution

- 1 What happened to dinosaurs about 65 million years ago? They became extinct.
- 2 What is the name for a special layer in the Earth's atmosphere which helps protect our planet?
- 3 What word can be used to describe the increasing contact between countries that has a major impact on life today?
- 4 What causes problems because it is difficult to dispose of safely?
- 5 What have scientists shown to be melting worryingly fast at the North and South Poles?
- 6 What does the chemical symbol CO2 represent?
- 7 What has been happening in the Amazon area and in other tropical areas like Indonesia and Malaysia?
- 8 What problem is a type of air pollution?
- 9 What can cause harm to plant or other life when it falls on the land or sea?
- 10 What is the Siberian tiger an example of?
- 11 What has caused much plant and animal life in rivers in industrial areas to die out?
- 12 What is the term for the phenomenon describing the rise in the Earth's average temperature?

#### 23.2 Match words to form compound nouns.

1	acid	fuel	acid rain	6	greenhouse	disposal	
2	carbon	change		7	nature	reserve	
3	climate	party		8	organic	depletion	
4	fossil	footprint		9	ozone	effect	
5	green	rain		10	waste	food	

#### **23.3** Choose a word from the opposite page to complete each sentence.

- 1 An <u>environmentalist</u> is a person who does what they can to help protect the environment.
- 2 ..... items like plastic cups and paper plates are labour-saving but have a harmful effect on the environment.
- **3** The government says it is aiming for a significant ...... in this country's use of fossil fuels over the next ten years.
- 4 The company plans to ...... part of a nature reserve in order to build its new warehouses.
- 5 Carbon monoxide (CO) is an example of an air
- 6 The melting of the polar ice caps will have a ..... impact on the environment.
- 7 Staff can ..... of all recyclable items in these green bins.
- 8 Air pollution may ..... the lives of people with respiratory illnesses.
- 9 This company is proud of its ..... friendly policies.

#### 23.4

### Over to you

#### Answer these questions.

- 1 Which of the environmental problems in A exist in your country?
- 2 Do you think climate change is having any impact in your country?
- 3 How much support do green parties have in your country?
- 4 What could power cars instead of petrol or diesel?
- 5 Suggest three things people can do to reduce their carbon footprint.



A

#### Describing a city

The words city and town are sometimes used interchangeably but a city is generally large with a wider range of facilities. This is a description of Cork, one of Ireland's main cities. Which words or phrases might be useful for describing your own or another town?

Cork city is the major metropolis of the south; indeed with a **population** of about 119,500 it is the second largest city in the Republic. The main business and shopping centre of the town lies on the island created by two channels of the River Lee, with many of the **suburbs** within walking distance of the centre. The buses tend to be overcrowded and the one-way **traffic system** is extremely complicated. In the hilly area of the city is the famous Shandon Steeple, the bell-tower of St Anne's Church, built on the site of a church destroyed when the city was besieged by the English in



1690. Back across the River Lee lies the city's cathedral, an imposing 19th-century building in the French Gothic style. Cork has two markets. Neither caters specifically for tourists but those who enjoy the **lively** atmosphere of a real working market will appreciate their charm. The town has good sports and arts facilities. The Crawford Art Gallery is well worth a visit. It regularly puts on **adventurous** exhibitions by **contemporary** artists. The fashionable **residential** districts of Cork city overlook the **picturesque** harbour. There are other residential areas on the **outskirts**.

#### **B** Facilities

C

Sports: swimming pool sports centre golf course tennis courts football pitch skating rink

Culture: theatre opera house concert hall radio station art gallery Education: school college university library adult education centre museum Catering, accommodation and night-life: restaurant take-away hotel B&B (bed and breakfast) youth hostel club

**Transport:** bus service taxi rank car hire car park parking meters Other: health centre law courts registry office citizens' advice bureau job centre department store chemist's garden centre police station Town/City Hall estate agent housing estate industrial estate

#### Problems in cities

problem	effect	cause
traffic jams	traffic very slow, commuters get very stressed	too much traffic especially in the rush hour
slums	housing in a bad condition	poverty – people don't have money to spend on housing
vandalism	pointless destruction of property	poverty, lack of hope
overcrowding	difficult living conditions	too many people living in one place
pollution	deterioration in health	traffic and industrial

#### **D** Adjectives to describe a city

picturesque [very pretty and attractive], historic, spacious [with plenty of space], elegant, magnificent, lively, deserted [no one on the streets, e.g. at night], bustling [with lots of movement], packed [very crowded], filthy [very dirty], run-down [in a very bad condition]

#### Common mistake

There are a lot of open spaces in the centre of London. (NOT There are a lot of open places in ...)

24.1 Check that you understand the text about Cork by answering the following questions.

- 1 Where is Cork? Cork is in the south of the Republic of Ireland.
- 2 Where is the shopping and business centre of Cork?
- 3 What is Cork's traffic system like?
- 4 What is special about the site of St Anne's Church?
- 5 In what style is the architecture of Cork Cathedral?
- 6 Can you buy souvenirs at the markets?
- 7 Why is the Crawford Gallery worth visiting?
- 8 Where do Cork people live?

#### 24.2 Fill in the gaps in this description of a town. Use words from the text about Cork.

Cambridge has the <sup>1</sup> <u>second</u> oldest university in England (after Oxford). It has a <sup>2</sup> \_\_\_\_\_\_ of around 108,900, many of whom are students. The main tourist <sup>3</sup> \_\_\_\_\_\_ of the town lies in the city centre, around the university colleges. A number of the old university buildings are built on the <sup>4</sup> \_\_\_\_\_\_ of former monasteries or convents. Most of the more picturesque colleges <sup>5</sup> \_\_\_\_\_\_ the River Cam.



Most of the main hotels in the town are within walking <sup>6</sup> of the centre. The
own centre has a lively fruit and vegetable <sup>7</sup> and it <sup>8</sup> to be very
rowded on Saturdays. The Fitzwilliam Museum is well <sup>9</sup> visiting as is an art
allery called Kettle's Yard which regularly puts on quite varied <sup>10</sup> by a range of
artists. The town also has plenty of sports <sup>11</sup> catering for both young and old.
An interesting new Science Park has been built on the <sup>12</sup> of the town, about two
cilometres from the city centre.

- 24.3 Look at the list of facilities listed in B. Think of a town and tick all those facilities which the town has.
- **24.4** Suggest three words which would collocate well with the nouns below. The words do not have to be on the left-hand page.

1	history / science / folk / museum	4	ī
2		5	
3	/ / / college	6	су

#### 24.5 Which of the facilities in B might you go to in order to:

1 dance? a club	4 get married?	7 borrow a book?
2 play tennis?	·	8 buy a meal to eat at home?
<b>3</b> find a taxi?	6 see an exhibition?	9 do an evening class?

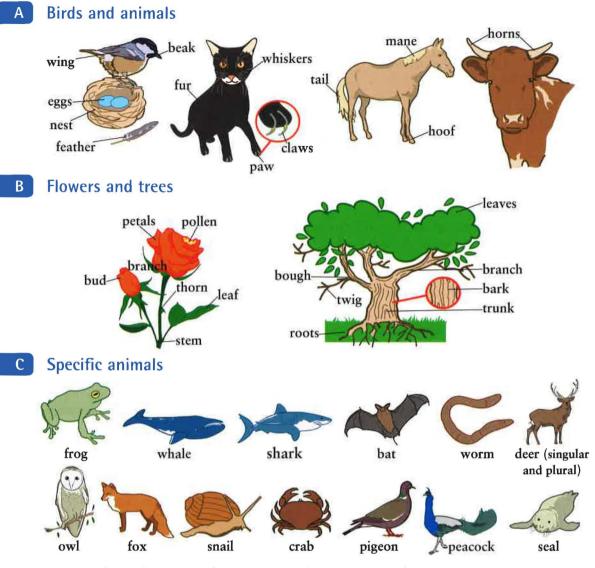
#### **24.6** What are the problems in C for these suggested solutions?

- 1 They should provide good-quality state housing. slums
- 2 There should be stricter laws about traffic emissions.
- 3 They should restrict the number of people living in any one area.
- 4 People who destroy public property should be made to do community service.
- 5 We need a much better public transport system.

#### 24.7 Over to you

Write a description of the town where you live or another town you know well, using as much of the vocabulary from this unit as possible. Then talk to a partner about the town you have described, if possible.

# 5 The natural world



Here are the English names of some creatures that you may not know.

#### Some verbs and collocations for talking about processes in nature

Our apple tree flowers / blossoms in April.

Let's pick some flowers.

These birds lay their eggs on the ground.

Bees collect pollen from flowers to make honey.

Some verbs can be intransitive (no object) or transitive (with an <u>object</u>): These flowers **grow** very quickly. We **grew** <u>some tomatoes</u> in our garden last year. These animals **breed** in the spring. My neighbour **breeds** <u>Burmese cats</u> and sells them.

#### Common mistake

Remember, we pick flowers / fruit; we don't say pick up. We **picked** some flowers and put them in a vase. (NOT <del>picked up</del>) We pick something up when it has fallen from its normal position or someone drops it. A woman dropped her purse so I **picked it up** and gave it back to her.

D

#### Answer the questions about the animals and plants on the opposite page. 25.1

- 1 Where does a bird lay its eggs? in a nest
- 2 What do bees help to move from one flower to another as they collect nectar to make honey?
- 3 What do we call the hairs that stick out from a cat's face?
- 4 Which part of a flower usually has the brightest colour(s)?
- 5 What do we call a horse's foot?

#### 25.2 Put these words into two groups: 'animal words' or 'plant words'.

petal oak willow fox worm thorn horn bark stem claw owl mane

animal words	plant words
mane	

#### 25.3 Fill in the blanks in the sentences below using words from the opposite page.

- 1 A tree's roots go a long way underground.
- 2 A cat can sharpen its ...... against the ..... of a tree.
- 3 Most fruit trees ..... in spring.
- 4 Plants will not ...... unless they get enough water and light.
- 5 Flowers last longer in a vase if you crush the end of their .......

- 8 If we pick up those ....., we can use them to start the fire.
- 9 ..... use a kind of radar to find their way around.
- 10 move very, very slowly.

#### 25.4 Match the sentence beginnings on the left with the endings on the right.

d

- 1 A large bough fell
- 2 We picked up
- 3 The scientists grew
- 4 The peacock opened
- 5 A frog jumped
- 6 We picked

- **d** from the tree during the storm.
- e some apples that had dropped from the tree.
- f a new type of tomato that was very big.

a some herbs to put on our pizza.

c into the stream and swam away.

b its feathers. It was beautiful.

#### 25.5 Answer the questions.

- 1 Which moves fastest and which moves slowest: a worm, a snail, or a deer? a deer, a snail
- 2 Which is the odd one out: a seal, a whale, or a crab?
- 3 Which of these animals has paws: a frog, a bat, a cat, a pigeon?
- 4 Which is correct? The bird lay / laid / lied three eggs.
- 5 Which is correct: (a), (b), or both? (a) He breeds horses. (b) Rabbits breed very quickly.
- 6 Which is a bird: a bat, a pigeon or both?

#### 25.6 Over to you

A tulip is the national emblem of the Netherlands and a maple leaf represents Canada. What flower or animal is used as the national emblem of your country? What other plants or animals are national emblems? If possible, compare your answers with someone else.

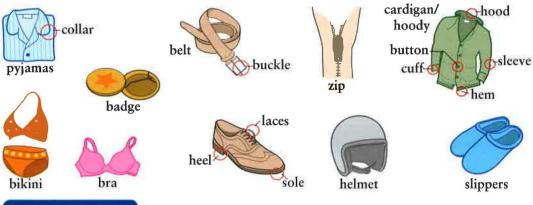


# 6 Clothes



### Some items of clothing

At this level you probably already know most of the everyday words for clothes. Here are some items of clothing or parts of them which are perhaps less familiar.



#### Language help

Most items of clothing covering the legs are plural words only. If you wish to count them, you need to say, e.g. *Six pairs of trousers/shorts/tights/jeans/underpants or Jamie's football shorts are too small for him now. I need to get him a new pair.* 

#### B Verbs associated with clothing

Can I try on these grey shoes in the window? I love dressing up for parties as I normally wear jeans. The skirt is too tight and too short – it needs letting out and letting down. The dress is too loose and too long – it needs taking in and taking up. He changed out of his weekend clothes into his uniform. Red usually doesn't suit people with ginger hair. Her black bag matches her shoes. Those shoes don't fit my son any more. He's grown out of them.

#### C Adjectives for describing people's clothing

How things fit: baggy [loose] close-fitting [tight] Style: long-sleeved sleeveless V-neck round-neck Materials: denim [jeans are usually made of this] woollen [made of wool] suede [a kind of leather that isn't shiny] The patterns on materials:



### Other words and expressions useful for talking about clothing

Anna always looks very elegant even when she's dressed casually. [in a casual or informal way] I don't think it's worth spending money on designer sunglasses. [made by a famous or fashionable designer]

Does your country have a special national costume?

Alessandra's put her top on inside out - I can see the label!

The burglars wore **masks** and hoods as a **disguise** in the hope that no one would be able to recognise them on CCTV.

D

#### 26.1 Which words illustrated in A opposite fit best in the following sentences?

- 1 I've eaten too much I'll have to loosen my belt.
- 2 I must get my black shoes repaired. One ...... is broken and both the ...... have holes in them.
- 3 Do up your ..... or you'll fall over.
- 4 It's not very warm today. You should wear a ..... over your shirt.
- 5 Put your ..... on this floor is very cold.
- 7 It's starting to rain why don't you put your ..... up so you don't get wet.
- 8 Come on, children. It's time for bed. Go and put your \_\_\_\_\_ on.
- 9 You must wear a ..... when you ride a motorbike.
- 10 Maya went on holiday last week. She packed her beach towel but forgot her ...... so she couldn't go swimming.

#### 26.2 Complete these sentences with any appropriate word. Use *pair* where it is necessary.

- 1 Josh badly needs to buy a new pair of jeans.
- 2 Blue \_\_\_\_\_\_ are a kind of international uniform for young people.
- 4 Dad needs some new underpants. Can you buy him three ...... today?

#### **26.3** Write two items of clothing that collocate with these adjectives.

1 close-fitting <u>top jeans</u> 2 baggy .....

3 checked

4	woollen
5	suede
6	denim

#### 26.4 Which words and expressions from D do these pictures illustrate?



1 Natasha always looks elegent.



2 Japanese



5 His shirt is .....

26.5 Put the right verb, match, suit or fit, into each of these sentences.

- 1 The blue dress fits her perfectly now she's had it taken in.
- 2 The blue of her dress ..... the blue of her eyes.
- 3 That blue dress ...... the girl with the blonde hair.
- 4 I can lend you a pair of slippers if you like. I think these ones should ......

#### 26.6 Over to you

Describe in as much detail as you can how (a) you and (b) someone else you can see are dressed. Use as many words as you can from this unit.



3 .....

# 7 Health and medicine

### A What are your symptoms?



All these noun phrases can be used with the verb have (got). I've got ...

... a sore throat / a temperature [a higher temperature than normal] / high/low blood pressure / chest pains / backache / earache / a pain in my side / a rash on my chest / a bruise on my leg (e.g. after playing football) / a black eye (e.g. after being hit in the eye) / a lump on my arm / indigestion (after eating too fast) / sickness and diarrhoea /daiə'riə/ [an upset stomach which makes you vomit and need to go to the toilet frequently] / sunburn / a virus.

Verbs: My back is aching. I shouldn't have lifted all those heavy boxes.

My leg is **itching** – I think I've been bitten by an insect. [you want to scratch it all the time] My hands are **trembling** after the shock of falling down. [shaking slightly]

I had a headache and started shivering. I knew it was the flu. [shake because you are cold] My foot hurts from where I knocked it against the table.

I had a cold and it took me two weeks to get over it. [to get better; more formal = to recover from it]

Adjectives: I feel sick / breathless / dizzy. [my head is spinning]

I am depressed / exhausted / stressed.

I think I've picked up a bug somewhere. [infml = caught a virus or infection]

Other expressions: I've lost my appetite / voice.

I've broken my wrist / sprained my ankle / dislocated my shoulder.

She died of a heart attack.

He contracted AIDS. [infml = 'got']

My uncle suffered a stroke. [sudden change in the blood supply to a part of the brain, which can cause a loss of the ability to move particular parts of the body; infml = 'had']

#### B What does the doctor prescribe?

Take a teaspoonful of medicine last thing at night. We'll get the nurse to put a bandage on your wrist.

You'll need to have some injections before you go to the Amazon.

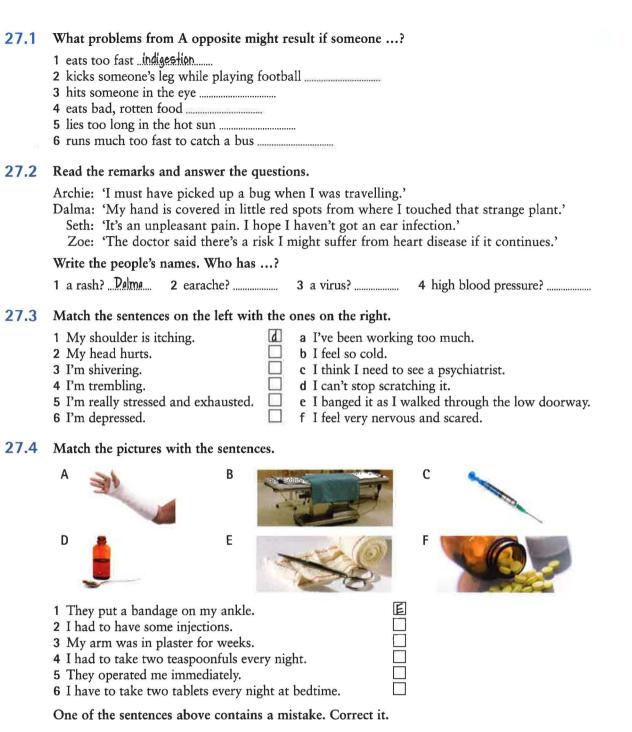
I'm afraid you're going to need an operation.

You'll have to have your leg put in plaster until the break mends.

I'm going to give you some tablets - take one in the morning and one at night.

#### Common mistake

A surgeon operates **on** a patient. They decided to operate **on** her and remove the tumour, (NOT They decided to <del>operate her</del>.)



#### 27.5 Answer the questions.

- 1 Which is correct? My aunt died (a) with (b) of a heart attack.
- 2 What is a more formal way of saying these? (a) He got AIDS in 2001. (b) She had a stroke.
- 3 What is an informal way of saying this? I had an infection but I recovered from it.

#### 27.6 Over to you

Make a list of any of the problems mentioned in this unit that you yourself have had. What were the symptoms? What did you do to solve the problem(s)?

# 8 Medicine and technology

#### Α

### A history of health technology

Ancient Egypt	The earliest crutches were in use.	
Middle Ages	<b>Spectacles</b> <sup>1</sup> , probably invented by Arab scientists, were used to correct vision <sup>2</sup> .	
1500-1600	The first wheelchairs were developed.	
1800–1900	1804: the first general anaesthetic <sup>3</sup> was used in an operation in Japan.	
	1896: X-rays <sup>4</sup> were first used in medicine.	
1960–1970	The first contact lenses <sup>5</sup> were manufactured <sup>6</sup> .	

<sup>1</sup> a more formal word for glasses <sup>2</sup> the ability to see <sup>3</sup> something used to make you unconscious when you have an operation, so that you do not feel any pain <sup>4</sup> a type of radiation that makes possible photographs of hidden objects such as bones and organs in the body <sup>5</sup> a small piece of transparent plastic which is worn on the surface of your eye to improve your sight <sup>6</sup> made in large numbers, usually in a factory



#### B The present day

Medical technology has made rapid<sup>1</sup> advances<sup>2</sup> in recent decades<sup>3</sup>. Nowadays, a vast<sup>4</sup> range of devices<sup>5</sup> is available: people with hearing difficulties wear sophisticated<sup>6</sup> hearing aids<sup>7</sup>; people with heart problems wear tiny pacemakers<sup>8</sup>. Artificial<sup>9</sup> hips<sup>10</sup> and knees are common, and are highly<sup>11</sup> efficient. Eyesight problems can be corrected by laser surgery<sup>12</sup>.

<sup>1</sup> very fast <sup>2</sup> improvements or developments <sup>3</sup> a period of 10 years <sup>4</sup> very wide <sup>5</sup> object or machine made for a particular purpose <sup>6</sup> clever in a complicated way and able to do complicated tasks <sup>7</sup> a small device put inside someone's ear to help them hear better <sup>8</sup> a small device put inside someone's chest to help their heart beat correctly <sup>9</sup> not natural, a copy made by humans <sup>10</sup> the joint which connects the leg to the upper part of the body <sup>11</sup> very (more formal) <sup>12</sup> medical corrections wing neuron hearts of light

<sup>12</sup> medical operations using powerful narrow beams of light

#### The future

C

A recent TV documentary predicted the following developments in medical technology.

- Scanners which can identify health problems at an early stage<sup>1</sup> will become more and more sophisticated.
- Diagnosing<sup>2</sup> illnesses from a distance. Patients will sit at their home computers, describe their symptoms and send information automatically to their doctor (for example, their blood pressure<sup>3</sup> or body temperature) using instruments such as thermometers connected to their computer.
- Computers and huge databases will provide doctors with more and more information and the tools<sup>4</sup> to treat diseases.
- Keyhole surgery<sup>5</sup> will become more common. It will not be necessary to cut open a person's body to operate on them.

<sup>1</sup> during the first period of development <sup>2</sup> name the exact character of a disease or a problem, by examining it <sup>3</sup> measure of the strength at which the blood flows through the body <sup>4</sup> something that helps you do something <sup>5</sup> medical operations in which a very small hole is made in a person's body to reach the organ or tissue inside

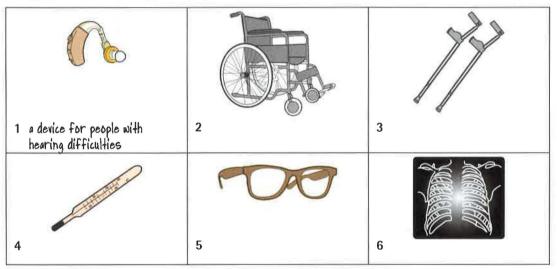
#### 28.1 Look at A opposite and answer the questions about medical technology.

- 1 What did Arab scientists probably invent? <u>glasses</u> (two answers, one more formal)
- 2 What began to be used in 1896 to enable doctors to take photographs of the inside of people's bodies?
- 3 How did the ancient Egyptians help disabled people to walk?
- 4 What alternative to glasses became popular in the 1960s and 1970s?
- 5 How could disabled people move around as early as 1500 to 1600?

#### **28.2** Rewrite the words in bold using words from A and B opposite.

- 1 Medical scanners are made manufactured at this factory.
- 2 Glasses were invented to correct problems ...... with eyesight ......
- 3 Technology for medicine ...... has made very fast progress
- 4 There is a now a large number of things \_\_\_\_\_\_ of \_\_\_\_\_ that make life better for people with medical problems.
- 5 Copies of natural ...... hips are very ...... efficient.

#### **28.3** Using words from the opposite page, say what each object is for.



## 28.4 Complete the missing words. You are given the first letter(s). A preposition is missing in sentence 3. Add it.

- 1 Doctors will be able to identify diseases at an early s in the future using sophisticated sc.
- 2 Doctors will be able to d...... a patient's illness from a distance. Patients will send information a..... to their doctor.
- 3 K..... s......... means doctors no longer need to open a patient's body when they operate them.
- 4 Information on large computer d...... will help doctors t..... diseases and give them new t...... to cure illnesses.

#### 28.5 Over to you

Have you used or experienced any of the examples of medical technology mentioned in this unit? How? When? Write true sentences,