

6 Superhuman



IN THIS UNIT YOU

- talk about the amazing human body
- read about technological extensions to our bodies
- learn about first aid
- watch a TED Talk about seeing disability in a different way
- write an informal email

6A Amazing bodies

VOCABULARY The human body

- Do you know any interesting facts about the human body?
- Use the numbers in the boxes to answer the questions in the quiz. There is one number in each box that you don't need.

1 5 27 70 100 18,000 96,000 86,000,000,000

The heart and blood The heart moves blood and oxygen around the body.

- How much blood passes through an adult heart each time it beats? (ml)
- How long are all the blood vessels in the body if you put them all in a line? (km)
- What percentage of the oxygen we breathe in do the lungs absorb? (%)

The brain and senses These tell us about our environment.

- How many cells are in the human brain?
- What percentage of the brain do we use? (%)
- What is the surface area of the skin of an adult male? (sense of touch) (cm²)
- How many areas are there on the human tongue? (sense of taste)

9 17 50 206 300–1,000 435

The bones and skeleton The skeleton supports the body.

- What is the difference in your height if you measure how tall you are in the morning and again in the evening? (mm)
- How many bones are there in an adult body?
- What is the world record for the number of bones one person has broken in their lifetime?

Food and digestion Digestion is how we get nutrients from our food into the body.

- How far does food travel through the body? (metres)
- How many different types of bacteria live in our digestive system?

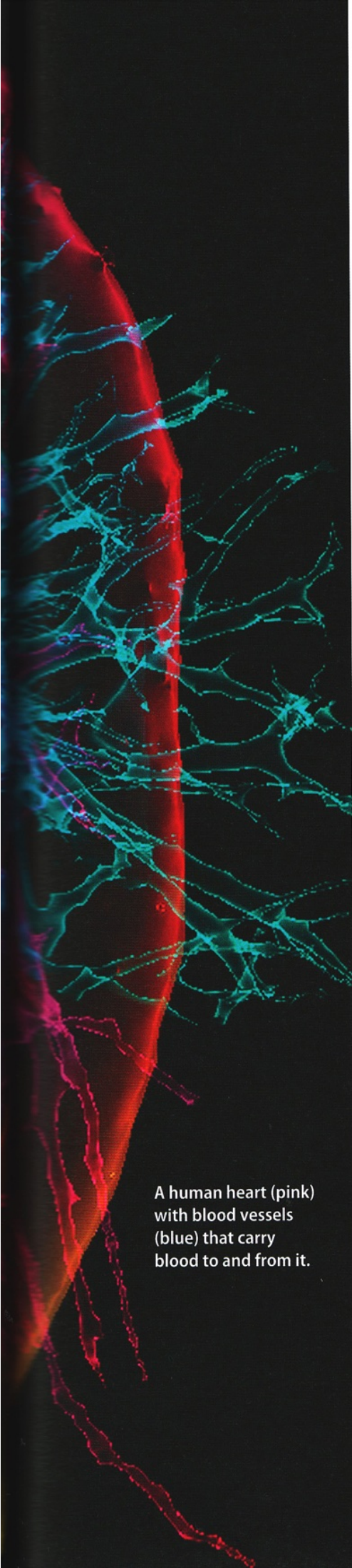
- Complete the sentences with these pairs of words.

bone + bacteria	breathe + lung	muscles + tongue
skeleton + cell	beat + skin	blood + oxygen

- I enjoyed the biology exam. We had to label the bones on the human _____ and draw a red blood _____.
- She's got a cough and she's finding it hard to _____. She may have a _____ infection.
- The doctor says I've broken the _____, but she's more worried that _____ have got into the cut.
- It isn't true that the _____ vessels under your skin look blue because they don't contain much _____.
- I know there are several places where you can feel your heart _____ under your _____, but I can never find them!
- There are eight _____ in the _____. They work together so we can speak and eat.


- MY PERSPECTIVE

Work in groups. Which facts in Exercise 2 did you find most interesting?




A human heart (pink) with blood vessels (blue) that carry blood to and from it.

LISTENING

5 Listen to a radio programme about the human body. Which areas from Exercise 2 on page 69 do the speakers talk about?  36

- the heart and blood
- the bones and skeleton
- the brain and senses
- food and digestion

6 Listen again. Choose the correct option (a–c) to complete these sentences.  36

- 1 The backbone has changed over time
 - a so we can travel long distances.
 - b so it can hold our head up.
 - c in order to run, climb and swim better.
- 2 If you have a healthy diet, you may have _____ bacteria in your body.
 - a more
 - b less
 - c no
- 3 People who live in the Andes and the Himalayas
 - a breathe in more air than most people.
 - b show that evolution can happen quickly.
 - c carry more oxygen in their blood.

7 Work in pairs. Discuss the questions.

- Do you walk more, less, or about the same as most people you know?
- How do you look after your body? Think about diet, your bones, heart, lungs and skin.

Danuru Sherpa uses his iPhone to talk to his family at Ama Dablam Camp 1, Nepal.

GRAMMAR Zero and first conditional

8 Look at the sentences in the Grammar box. Which are talking about possible future situations? What are the other sentences describing?

Zero and first conditional

- a Our bodies **don't look** very impressive if we **compare** them with other animals.
- b If you **listen** to today's show, you'll **find** out why the human body is extraordinary.
- c Unless you **take** the car everywhere, you **might walk** up to 185,000 kilometres in your lifetime.
- d You **will have** difficulty breathing if you **go** to high altitudes.
- e If you **think** evolution always happens very slowly, **think** again.

9 Look at the Grammar box again. Complete each sentence about zero and first conditional sentences.

- 1 Zero conditional sentences talk about *general facts / possible future situations*.
- 2 First conditional sentences talk about *general facts / possible future situations*.
- 3 Conditional sentences have *one clause / two clauses*.
- 4 Zero and first conditional sentences have a *present / future* tense in the *if*-clause.
- 5 In zero conditional sentences, we usually use the *present simple / future with 'will'* in the result clause, e.g. sentences _____ and _____.
- 6 In first conditional sentences, we use a *present / future* form in the result clause, e.g. sentences _____ and _____.

- 7 Not all conditional sentences use *if*. We can also use *however* / *unless*, which means *if not*.
- 8 In zero or first conditional sentences we can also use an imperative, e.g. sentence _____, or a modal verb, e.g. sentence _____.

Check your answers on page 138. Do Exercises 1 and 2.

10 Choose the correct options to complete the paragraph.

There's so much health advice these days, how do you know what to believe? They say that if (1) *you're* / *you will* be worried about your heart, you (2) *should* / *will* exercise every day. But then again, you (3) *might* / *will* hurt yourself if you (4) *may do* / *do* sport. And they said that (5) *if* / *unless* you (6) *avoid* / *might avoid* eating fatty food, you (7) *get* / *will get* heart disease. But now it's sugar we should be worried about! (8) *If* / *Unless* we (9) *continue* / *will continue* to drink sugary drinks, (10) *do* / *will* we all get diabetes? I'm so confused!

11 Complete the advice with the correct form of the verbs.

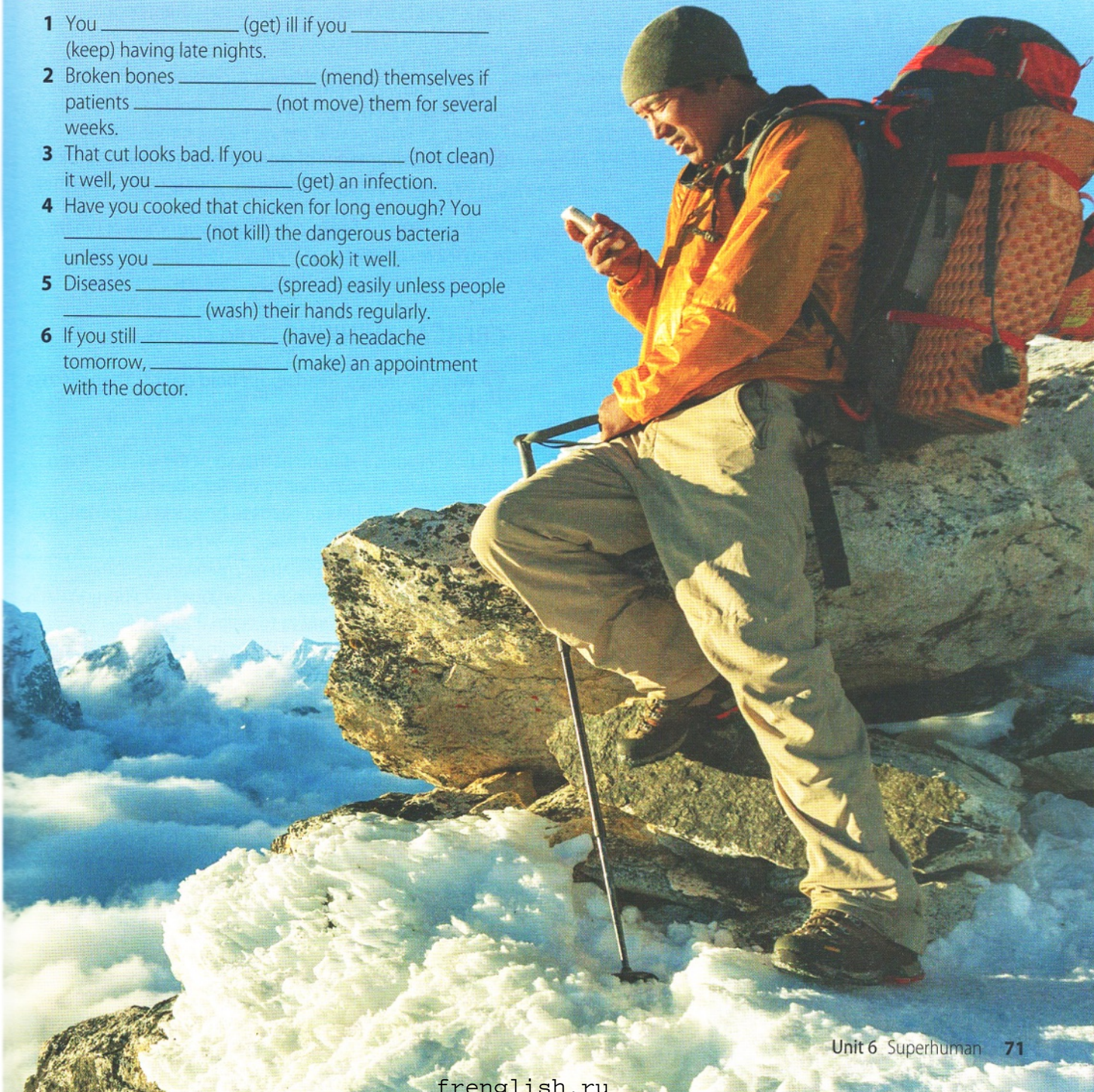
- 1 You _____ (get) ill if you _____ (keep) having late nights.
- 2 Broken bones _____ (mend) themselves if patients _____ (not move) them for several weeks.
- 3 That cut looks bad. If you _____ (not clean) it well, you _____ (get) an infection.
- 4 Have you cooked that chicken for long enough? You _____ (not kill) the dangerous bacteria unless you _____ (cook) it well.
- 5 Diseases _____ (spread) easily unless people _____ (wash) their hands regularly.
- 6 If you still _____ (have) a headache tomorrow, _____ (make) an appointment with the doctor.

12 Work in groups. What should you do if:

- 1 you cut your finger?
- 2 you have a high temperature (38°+)?
- 3 a classmate feels sick?
- 4 a cyclist is hit by a car and cannot move?
- 5 you find someone in the street who is not breathing?

13 Work in groups. Imagine you are going camping, far from medical help. Plan your first aid kit. What will you include? Why?

We'll need plasters if someone cuts themselves.



6B More than human?

READING

1 Read the definition of a *cyborg*. What cyborg technology can you think of, fictional and real?

cyborg (n.) a person who has added extra tools or machines to themselves so that they can improve their own abilities

2 Read the article. Choose the best summary.

- 1 Cyborg technology is already used to help people with disabilities.
- 2 In the future, everyone will have cyborg superpowers.
- 3 Surprising as it may seem, cyborg technology is not new, and not unusual.

3 Read the article again. Answer the questions. Then compare your answers with a partner.

- 1 Why doesn't Michael Chorost like the word *cyborg*?
- 2 What unusual ability does Michael Chorost have? Why is it good?
- 3 Hugh Herr lost his legs. What two unexpected advantages of this are mentioned?
- 4 What technologies that many people already use does the writer mention?
- 5 How is writing a 'cyborg technology'?

4 MY PERSPECTIVE

Work in pairs. Discuss the questions.

- In what ways are you a cyborg?
- What jobs that your brain could do have you given to technology?
- Are there any disadvantages of using technology as an extension of our abilities?

VOCABULARY BUILDING Verbs describing ability

5 There are several verbs in the article that mean *make something easier/possible* or *difficult/impossible*. Use the clues to find the verbs in the article.

- 1 a _ _ _ _ (paragraph 1)
- 2 l _ _ _ (paragraph 2)
- 3 e _ _ _ _ (paragraph 4)
- 4 h _ _ _ (paragraph 5)
- 5 p _ _ _ _ _ (paragraph 5)
- 6 s _ _ _ (paragraph 5)
- 7 s _ _ _ _ (paragraph 6)

6 Match the verbs from Exercise 5 with their verb patterns. Use the article to help you.

make something easier/possible

(1) _____ / (2) _____ + someone + do

(3) _____ / (4) _____ + someone + to do

make something difficult/impossible or unnecessary

(5) _____ / (6) _____ /

(7) _____ + someone + (from) + -ing

7 Put the words in the correct order. Add *to* and *from* if necessary.

- 1 enable | glasses | people with poor eyesight | see better
- 2 allows | go to school | have a cold | if | this medicine | you | you
- 3 disabled people | helps | the robot suit | walk again
- 4 doing exercise | prevents | putting on weight | you
- 5 becoming addicted | hopes | will stop | the advert | the government | to cigarettes | young people
- 6 having to train | in the rain | running machines | save | you
- 7 if | know | lets | the nurses | stops breathing | this machine | the patient

8 List six advantages of smartphones. Can you think of any disadvantages? Compare your list with a partner.

They let you stay in touch with your friends when they're far away.


CRITICAL THINKING Bold claims

9 Work in groups. Read about bold claims. Then discuss the questions.

A bold claim is a statement that something is true, even if many people might not agree. For a bold claim to convince readers, there needs to be a good argument for why it is true.

- 1 The article suggests that everyone is a cyborg. What is the writer's argument to claim this is true?
- 2 How could you argue that someone who wears glasses or carries a mobile phone is not a cyborg? Do you think 'we are all cyborgs'?
- 3 Discuss which of these other statements, if any, are bold claims.
 - a Technology is very much part of who Michael Chorost and Hugh Herr are.
 - b The first time a human used a rock as a tool to open a nut, they created an extension of their hand.
 - c Writing is a cyborg extension of the brain.

A world of cyborgs

 **37** Without technology, Michael Chorost wouldn't hear anything. Electronic implants* in his brain allow him to hear enough to have a phone conversation. Technically, Michael is a cyborg – part man, part machine – but he doesn't like that term: 'it brings up images of superhuman abilities.' In science fiction, the cyborg is stronger than normal humans; think about Robocop or Darth Vader, for instance. 'The future is not about giving our bodies ways to do things they already do,' Chorost says. 'It's about giving our bodies entirely new things.'

In Michael's case, for example, his disability has an unusual benefit. Thanks to his implants, he's able to turn his hearing off. This lets him concentrate better. If only the rest of us could do that!

Hugh Herr lost both legs in a mountaineering accident, but that didn't stop him from climbing. Artificial legs offer advantages he wouldn't have if he had his old legs. His small artificial feet can get into smaller gaps in the rock. And in normal life, when he's feeling small, he can make himself taller! Don't you wish you could change your height? Now Herr is working on how brain cells can communicate directly with electronics to control muscles.

This may sound like science fiction, but in a sense, we are all cyborgs, and always have been. Technology is very much part of who Michael Chorost and Hugh Herr are, but just because the rest of us don't have implants doesn't mean our gadgets* aren't an extension of our bodies. Would it make any difference if our smartphones were in our arms in the future, for example? The first time a human used a rock as a tool to open a nut, they created an extension of their hand. And glasses and contact lenses are technologies that many of us wear most of the time, and which enable us to see better.

Some experts claim that modern gadgets such as smartphones are different because they help us extend our brains, not just our bodies. For example, they prevent us from forgetting our friends' birthdays; they do difficult calculations for us, and they stop us from getting lost. However, haven't we been using technology to do our thinking for us for hundreds of years? Take a calculation like $312 \div 13$. I'm sure you can do it in your head, but if you weren't able to, you could use a calculator, or you could also use a pen and paper if you needed to.

Writing is a cyborg extension of the brain that saves us from having to keep lots of information in our memory, and we've had it for a long time! So, next time you hear someone saying that cyborg technology is the future, tell them it's the past and present, too.

implants *things that have been put into the body in a medical operation*

gadgets *small machines with a particular purpose*



Hugh Herr climbing with the use of his artificial legs.



6C First aiders

GRAMMAR Second conditional

1 Work in pairs. Look at the photo, then discuss the questions.

- What is the emergency?
- What skills are the team using to deal with it?
- Do you think you could handle an emergency like this? What first aid skills do you know?

2 Listen to the radio report. Complete the table. 38

	Anmol	Natasha
What was the problem?		
How did they help?		

3 Read this sentence and answer the questions.

More lives would be saved if everyone learned first aid at school.

- 1 Does everyone learn first aid at school?
- 2 Are all the lives saved that could be saved?
- 3 What verb form is used after *if*?
- 4 Is the situation in the past?

4 Read the sentences in the Grammar box. Choose the correct options to complete the paragraphs.

Second conditional

- a *If I **did** a first aid course, I **would** know what to do.*
- b *Anmol **wouldn't** know what to do in emergencies if they **didn't** teach first aid at her school.*
- c *If **only** more of us **knew** what to do.*
- d *The Red Cross **wish** more schools **taught** these essential skills.*
- e ***Could** you help if you **saw** someone in trouble?*
- f *If it **wasn't** for you, she **might** not be alive.*

The second conditional describes (1) *imaginary / real* situations or situations which are (2) *likely / unlikely* in the future. To form the second conditional, we use *would* in the (3) *result clause / if-clause* and the past simple in the (4) *result clause / if-clause*.

We can sometimes replace *would* with (5) *can / could* or (6) *may / might*.

When we want a present situation to be different we can use *If only* or *wish*. These are followed by verbs in the (7) *past / present* form.

Check your answers on page 138. Do Exercises 3–5.

5 Choose the correct options to complete this first aid advice.


What would you do if you (1) *saw / see* someone in trouble in the street? Do you wish you (2) *knew / know* more about first aid? Here are a few tips ...

First, don't feel that just because you're not a doctor, you can't help. If it (3) *was / would be* you in trouble, (4) *didn't / wouldn't* you want someone just to hold your hand and sit with you? Stay calm and try not to panic.

If you (5) *found / might find* someone who was unconscious, i.e. you couldn't wake them up, you (6) *first / would first* need to check that their airway (mouth and throat) was clear, that they were breathing and that they (7) *have / had* a heart beat. Look up 'Airway, Breathing, Circulation – ABC first aid' to find out more. If you had a phone with you, the second thing to do (8) *was / would be* to call an ambulance.

Finally, do more than just read about it. (9) *Can / Would* you trust doctors if all their medical knowledge (10) *was / would be* from books? Find a centre near you where they teach first aid. If someone's life was in your hands one day, you (11) *might / would* have to act fast. Don't leave yourself thinking: (12) '*If / If only* I was a first aider!'

6 PRONUNCIATION *I wish and If only*

a Listen to the sentences. Underline the stressed words.  39

- 1 If only I knew what to do.
- 2 I wish I had a mobile phone.
- 3 I wish I didn't have a cold.
- 4 I wish I could get to sleep at night.

b Write sentences starting *I wish* and *If only* that are true for you.

- 1 an ability you wish you had
- 2 something you wish your parents let you do
- 3 a bad habit you wish a friend or family member didn't have
- 4 something you wish you could change about your town or country
- 5 something you wish you could do for someone else

c Compare your sentences with a partner. Practise saying them with the correct stress.

7 Complete the conversations with a suitable ending.

- 1 A: Oh dear! Are you OK?
B: No. I've cut my knee.
A: Ooh, it looks bad! If only ...
- 2 A: I've got really bad earache today.
B: Have you made an appointment to see the doctor?
A: Not yet. If my mum ...
- 3 A: I feel sick. If only ...
B: Oh no! Sit down and have a drink of water.
A: I wish ...

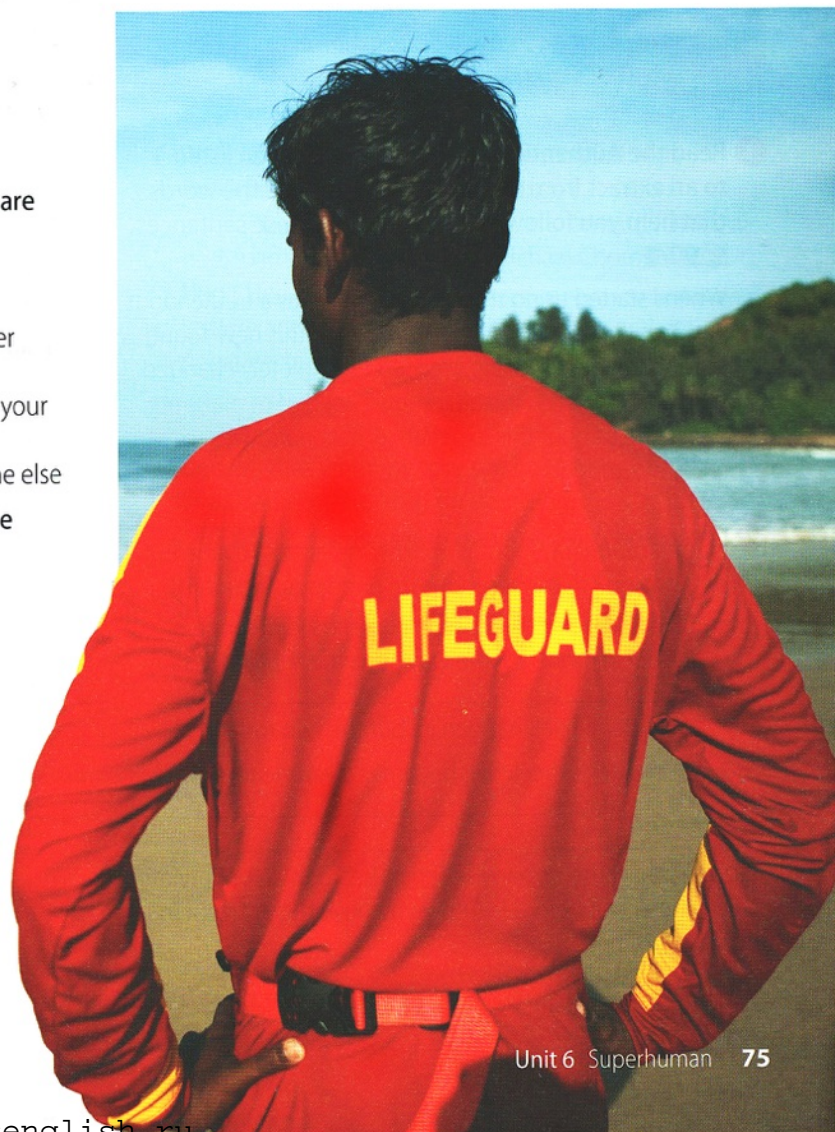
8 Work in pairs. Practise the conversations.

9 CHOOSE

- 1 Find out as much as possible about local first aid courses (what you learn, when you can do them, etc.). Tell the class what you found.
- 2 Research what to do in one of these emergencies. Then write an information poster about it.

bleeding	broken bones	burns
choking	insect stings	a sprained ankle

- 3 Imagine you are in an English-speaking environment and there is a medical emergency. Roleplay the situation in pairs or small groups.



A lifeguard on Baga Beach in Goa, India.

6D Deep sea diving ... in a wheelchair

“ We see and discover the power and joy of seeing the world from exciting new perspectives. ”

SUE AUSTIN

Read about Sue Austin and get ready to watch her TED Talk. ▶ 6.0

AUTHENTIC LISTENING SKILLS

Following the argument

Certain words and phrases help us follow the speaker's argument. For example:

Learning to play the game was difficult. However, I enjoyed it very much. That's why I decided to carry on.

- 1 Read the Authentic listening skills box. Then listen to an extract from the TED Talk. Underline the words that help you follow the argument in these sentences.

🔊 40

When I started using the wheelchair, it was a tremendous new freedom ... But even though I had this new-found joy and freedom, people's reaction completely changed towards me ... As a result, I knew I needed to make my own stories about this experience, new narratives to reclaim my identity.

- 2 Listen and complete two more extracts. 🔊 41

1 _____ I began to dive, in 2005, I realized scuba gear extends your range of activity in just the same way as a wheelchair does ...

_____ 'I wonder what'll happen if I put the two together?'

2 For me, the wheelchair becomes a vehicle for transformation. _____

_____ that because nobody's seen or heard of an underwater wheelchair before, ... now you have this concept in your mind.

WATCH

- 3 Read the quote in Exercise 1 again. Why do you think Sue describes using a wheelchair as freedom? What reaction do you think her wheelchair had from other people?
- 4 Watch Part 1 of the talk. Are these statements true (T) or false (F)? ▶ 6.1
- 1 At first, Sue didn't enjoy her wheelchair.
 - 2 Other people felt that wheelchairs were a sign of a lack of freedom.
 - 3 Sue didn't let what other people thought affect her.
 - 4 Sue read a story that helped her to see things differently.
- 5 Watch Part 2 of the talk. Choose the correct option to complete the sentences. ▶ 6.2
- 1 With her wheelchair, Sue tried to communicate *happiness / strength* as well as freedom.
 - 2 She used her wheelchair to create *music / visual art*.
 - 3 The interest that other people took in Sue's work *excited / surprised* her.
 - 4 Sue says that underwater scuba gear allows people to do things in more places. Wheelchairs are *different / no different*.
 - 5 Sue wanted people to associate wheelchairs with *excitement and adventure / the underwater world*.
 - 6 Sue plays the underwater video to show how *the wheelchair works / amazing her journey has been*.



6 Watch Part 3 of the talk. Which results of her underwater adventures does Sue mention? ▶ 6.3

- 1 Other people are inspired to challenge themselves.
- 2 Sue has become a good diver.
- 3 Wheelchair users can now buy an underwater wheelchair.
- 4 She has experienced physical freedom.
- 5 Sue's art makes people think about wheelchairs in a more positive way.
- 6 She has learned more about the problems that the ocean faces.

7 VOCABULARY IN CONTEXT

- a** Watch the clips from the TED Talk. Choose the correct meaning of the words and phrases. ▶ 6.4
- b** Think of examples of the following things.
- ways we can make it easier for wheelchair users to *access* buildings
 - times when you have experienced a *tremendous* sense of freedom
 - the last time you needed to ask a teacher to *extend* a homework deadline
 - the possible learning *outcomes* of this lesson, i.e. what you will learn
 - a reason your eyes would *light up*
 - a *concept* that young children find difficult to understand
- c** Work in pairs. Compare your ideas. Which are the most interesting? Why?

8 MY PERSPECTIVE

Work in pairs. Discuss the questions.

- What ideas about wheelchairs and wheelchair users did you have before watching Sue Austin's talk?
- Why did Sue decide to go underwater with her wheelchair?
- Did the video of Sue's underwater wheelchair change your ideas? How?
- What other activities, which are associated with freedom, could be used to challenge people's assumptions about wheelchairs, implants and artificial body parts? Think about Sue, Michael Chorost and Hugh Herr (page 73).
- Is there anything in your life that people think is negative, but you don't think of it like that?

CHALLENGE

Sue says that when people see her art they think: 'If you can do that, I can do anything.'


Think of a challenge or goal that you would like to do, or have been intending to do. If Sue can dive underwater in a wheelchair, can you do your 'anything'?

6E Physical challenges

SPEAKING

1 Work in pairs. Look at the photos and answer the questions.

- Would you describe yourself as a dancer?
- Have you got a traditional dance in your country or region?
- Do people dress up to do the dance? Are there special occasions when you do it?
- What do you know about the history of the dance?

2 Listen to two people describing one of the photos below. Which photo are they talking about?  42

3 Use a word or expression from the Useful language box to complete the sentences. Listen again and check.  42

- 1 _____ some women dancing.
- 2 _____ costume.
- 3 _____ they're in a show or something.
- 4 _____ during a festival of some kind.
- 5 _____ a stage show in a theatre.
- 6 The feeling is _____ happiness.
- 7 They _____ they're really enjoying themselves.
- 8 _____ proud.

4 Work in pairs. Take turns to describe the other photo below. Make sure you answer these questions:

- What sort of event are the dancers at?
- What feelings are they expressing?
- How do they use their bodies and clothes to show their feelings?

5 Find a photo in this book that you like. Tell your partner which unit it is in. Describe the photo and ask your partner to find it.

Useful language

Describing photos

This one shows ...

On the right, there's a ...

In the middle / background, there's a ...

Behind ..., you can see ...

Making guesses

They look / seem ... (+ adjective)

She looks like ... (+ noun)

It looks as if ... (+ phrase)

It must / might be ...

It's obviously ...

Being imprecise

It's some / a sort of ...



WRITING An informal email describing people

6 Read the email on page 151. Answer the questions.

- 1 What's the relationship between Mauricio and Aditi?
- 2 What does Mauricio want Aditi to do?
- 3 Which of these questions doesn't Aditi answer?
 - a How do you know this person?
 - b What are they like?
 - c What do they look like?
 - d What is their extraordinary ability?
 - e What challenges have they faced?
 - f Why do you admire them?

7 **WRITING SKILL** Informal language

a Read the first paragraph of the email on page 151 again. Find informal words and phrases for these neutral or more formal words.

- | | | | |
|-------------|----------|--------------|--------|
| 1 Dear | 3 city | 5 definitely | 7 life |
| 2 thank you | 4 accept | 6 strange | |

b Match the words and expressions (1–9) with these more informal synonyms and abbreviations.

ages	at the mo	BTW	in a rush	loads
my place	my stuff	say hi to	thrilled	

- | | | |
|---------------|----------------------|----------------------------|
| 1 happy | 4 send my regards to | 7 my bags, suitcases, etc. |
| 2 a long time | 5 a lot | 8 by the way |
| 3 in a hurry | 6 at the moment | 9 my house |

c Rewrite these sentences so that they sound more informal and friendly. Use contractions where necessary.

- 1 Dear Gurpreet, Thank you for your email. It has been such a long time since we spoke, so I was happy to get your news. How is life with you?
- 2 By the way, while I'm travelling I'll need somewhere to keep my bags and everything. I was wondering if I could keep them at your house. I should warn you – there's quite a lot!
- 3 Anyway, I must go now; I am in a hurry to finish an essay at the moment. I'll definitely write again soon. Give my regards to Yuki when you see her. Yours, Ana.

8 Write a reply to Mauricio. Tell him some of your news and about someone you admire. Use phrases from the Useful language box and informal language.

9 Read your classmates' emails. Who would you like to know more about?

Useful language

Ways of starting an email

Hi ____ / Hello ____
 How are things?
 Sorry I haven't written for a while.
 Thanks so much for your email.
 It was great to hear about ...
 It was great to get your news.

Ways of ending

Please write soon.
 Don't forget to call me!
 Anyway, I must go now because ...
 Say hi to your brother for me.
 Give my love to ...
 Lots of love,
 All the best,
 Bye for now,
 Speak to you soon!

