Unit 1

1.1 (Opener)

It's now so familiar that it rolls off the tongue without thinking – Neil Armstrong's quote about walking on the Moon, that is. Yet some believe that he may have been misquoted ever since the first Moon landing in 1969. This includes Armstrong himself, who claims that the words he actually came out with were, 'That's one small step for a man, one giant leap for mankind.' But the version that has become associated with the event doesn't include the 'a' before man. As such, it doesn't carry the meaning that Armstrong intended, and instead implies that humans had only made a small amount of progress, yet had moved on a huge amount in the same breath!

1.2 (Opener)

Whether or not Armstrong was misquoted, was the Moon landing really the giant leap for mankind that he suggested? In many respects, yes. Many fascinating inventions have appeared as a result of preparations for space travel, with scientists devoting themselves to making astronauts' lives easier and more efficient.

Communication was key to relaying information from the Moon back to Earth on that first landing. While satellite imagery was already in existence by the 1960s, as space travel became more common scientists threw themselves into improving the technology, ultimately resulting in today's satellite TV. Then, in the 1990s, camera phones came into being: they were portable and could take high-quality images. This technology quickly caught on beyond space travel. Imagine not having a phone with a camera these days!

The health and comfort of astronauts was crucial to successful space missions, too, and led to useful applications here on Earth. In the 1960s, water-purification systems were used to filter astronauts' drinking water, and the idea was later put forward that the same process could be used to kill bacteria in swimming pools – it's still used today.

Of course, astronauts needed to eat as well as drink, and freeze-dried food – which already existed for coffee and crops – became much-improved. At only 20 percent of its normal weight but retaining 98 percent of its nutrients, it was the perfect solution for keeping astronauts full of energy without taking up vital room on the spacecraft.

There are countless other things that have sprung up as a result of problem-solving in space. Even the trainers on your feet today wouldn't exist if scientists hadn't created the materials for spacesuits!

1.3 (Opener)

See 1.1 and 1.2.

1.4 (Reading and Use of English Part 5)

OK, so to answer your question about travel companions – it's an interesting one, and I guess I would say yes, I go with different people to different places. It makes a lot of sense, doesn't it? I mean if you're off for a fun-filled break, somewhere like Ibiza, it's great to go in a group, isn't it? But you might not want to spend a week skiing with the same group of people! Your fun-loving friends might have the stamina to dance the night away, but not the fitness level to ski all day – and not everyone likes both the heat AND the cold like me. Oh, and can you imagine dragging someone round museums on a sightseeing city break, when all they want to do is lie on a beach somewhere to de-stress after months of hard work? No, definitely different companions. Oh, and while we're on the subject – I have to say there's no way I would ever spend longer than a weekend with my wonderful parents. I love them dearly but after a couple of days we'd drive each other up the wall. Far better to preserve a relationship than test it to its limits. And the same goes for friends!

1.5 and 1.6 (Reading and Use of English Part 1)

When I put myself forward for a TV talent competition, I didn't expect to get through the first round of auditions, let alone end up on the live shows. The competition consisted of a series of knock-out rounds over ten weeks – the public voted to eliminate one person each week. There was a fascinating range of acts – stuff like acrobatics and stand-up comedy – and I wasn't convinced my singing would capture the public's attention. But they kept me in week after week and before I knew it, it was the live final and I smashed it! I definitely exceeded my expectations!

I immediately started conjuring up fantasies of fame and fortune – I'd seen previous winners reap the rewards with highly paid recording contracts, advertising endorsements, the lot. I felt I deserved to do just as well after all my hard work!

The first year after winning the competition was awesome, and I was definitely suited to my new lifestyle! People recognised me everywhere I went – I could always get a table in a restaurant, I got a ton of free stuff from top fashion brands, and I went on to record my first album. The first time I heard someone humming one of my songs in the street it blew my mind – I really felt like I'd made it, regardless of the fact that my family kept warning me that people who shoot to fame overnight after winning this kind of contest tend to disappear from the limelight just as quickly.

They were right, unfortunately. The next series of the show aired a year later, and things started to go a bit cold. I'd released a new single but it didn't take off. I was dropped by my record label and it felt like my fans were abandoning me for the next big thing. I was incapable of doing anything about it, though, and got pretty down about it.

On reflection, I'm inclined to think that shows like that are more about creating short-term celebrities and making as much money from them as quickly as possible than they are about discovering real talent. It's just another form of reality TV.

All things considered, my fifteen minutes of fame was an incredible experience and I wouldn't change a thing. Not many people get to realise an ambition so young!

1.7 (Listening Part 1)

Only around ten percent of what we laugh at is something we actually find funny, but we laugh an average of seventeen times a day. So, if what we're hearing doesn't genuinely amuse us, why do we laugh so often?

Interestingly, studies have indicated that we tend to laugh more after our own sentences than someone else's. Do we really find ourselves that hilarious? In a word, no. But laughter's a social lubricant, and we most frequently laugh in order to strengthen our relationships and ease things along. Think about it: you probably don't laugh spontaneously when you're alone!

We sometimes laugh to show that what we've just said was intended to be amusing, but we also laugh when we're nervous or at inappropriate moments, such as when hearing about someone else's misfortunes. This might be seen as unkind or even cruel, but the fact is we're not knowingly in control of this kind of laughter – our subconscious is. And it also serves to release tension and allow us to relax, reducing the impact of stressful experiences.

There's no faking laughter, either. It's a completely subconscious reaction.

However, it can be very embarrassing if we don't understand a joke and have to force a laugh to save face – though perhaps we shouldn't pretend, as we're also great at spotting fake laughter!

Jokes also act like social glue, and they've been around for a very long time. Hundreds of years ago, wealthy households would employ an entertainer known as 'the fool'. Fools were not only proficient at making jokes for their audiences' enjoyment – much like stand-up comedians do today – but at storytelling, singing, acrobatics and magic tricks. They were considered not only funny, but smart, too.

Perhaps today's 'jokers' – we all know someone who loves a practical joke or makes light of awkward situations – take on the fool's role in modern society, creating harmony wherever they go. After all, as long as we're laughing, we feel OK.

1.1EB and 1.2EB (Listening Part 1 – Exam boost)

1 Don't you find it incredible how infectious laughter is? Even when you don't have a clue what someone's laughing at, if they're crying with laughter, we often join in.

2 If only I hadn't missed the plane, I'd be sunning myself on the beach by now. I really ought to plan my time better.

3 I've just been given an extension on the deadline, happily. That means I can make sure I do a decent job of my essay after being off college sick.

4 I've got mixed feelings about going to the party. A friend I fell out with is going to be there which could be awkward, but I'd love to see some other people I haven't seen for ages. I can't make my mind up.

5 Don't you think we should invite the whole class to the barbecue on Thursday? I'd hate for anyone to be upset because they've been left out.

1.8 (Listening Part 1)

Extract 1

A: I've just been reading an article about famous April Fools' Day jokes – there've been some funny ones. In the fifties, the BBC broadcast a report about a spaghetti harvest in Switzerland. They managed to convince viewers that spaghetti grew on trees. I hadn't come across the story before and I did wonder how people could've been deceived so easily. I reckon the broadcasters were simply playing on their ignorance – spaghetti was apparently a pretty exotic foodstuff in Britain back then. The BBC intended it as a light-hearted joke but not everyone took it that way, probably cos the segment aired on what was usually a serious documentary programme and people objected to being taken in like that. But it was only a bit of fun.

B: Well, maybe they had a point but April Fool's Day's good for the soul – it gives you a day off from behaving properly and in modern society where everyone spends the majority of their time working and studying hard, it provides an outlet for stress, albeit a temporary one. Practical jokes can be hilarious and you can pay people back for jokes they've played on you in the past. Within reason, of course!

Extract 2

A: People say fake news is harmless. My take on it varies. There's information that's put out there with the intention of being misleading – and in many cases to make money. Then there's information that journalists – people like you and me – unwittingly circulate in the belief that it's the truth. The latter can be forgiven – and I'd rather call it 'false' news than fake – but the former's difficult, if not impossible, to justify. We all know of someone whose career's been finished by it, but you know, contrary to popular belief, this kind of stuff's been around for quite some time, though admittedly it's only been brought to our attention lately.

B: Right. Of course, we write stories, but we read them, too. I'm sceptical about what I read online – especially via social networking sites – and my reporter's instinct to dig out the truth has so far kept me from falling for nonsense, thankfully. But some of it's pretty credible and you can see why some people believe things that are published by what seem like reliable sources. As a journalist, I think I'd be pretty red-faced at being taken in by something and spreading it around as fact.

Extract 3

A: If you have an online bank account – and most of us do – you'll be aware of ensuring your money is protected at all times. Hackers use ever-more sophisticated techniques to try to get at your cash or personal details, and this poses a real threat not only to individuals but organisations, too. In the past, it was easier to identify a fraudster – they'd ring the doorbell and try to convince you to part with your hard-earned cash for a product or service that would fall short of expectations. Now, scammers hide behind technology, and their tricks are becoming increasingly difficult to spot. So, what should you do? Beth, fill us in.

B: Well, we're all aware that we shouldn't go round handing out passwords and pin codes. But it's the unsolicited emails and phone calls from companies we've heard of and think we deal with on a regular basis that catch us out. A good rule of thumb is to take a deep breath and think 'Does this sound too good to be true?' Be suspicious, look out for spelling mistakes or inaccurate information, think rationally. I'd also like to stress that if you have been taken in, don't give yourself a hard time about it – today's scams are incredibly convincing.

1.9 and 1.10 (Reading and Use of English Part 2)

Everyone knows fingerprinting is a useful tool in determining who committed a crime, but personal identification isn't the reason we have fingerprints. So, what purpose do they serve? This is a question that scientists have long been pondering.

The patterns on our fingertips – which are formed months before we're born – might look like miniature grips, enabling us to prevent things quite literally slipping through our fingers. But scientists have dismissed this theory. This is because only the ridges really have much contact with a surface, and the 'valleys' between them have a lot less. This suggests grip might actually be minimised by fingerprints.

Although it was something that had puzzled scientists for a long time, few had tried to find out how fingerprints are useful to us. That is, until scientists who were working in Paris conducted an experiment in which they compared different kinds of artificially made fingertips – some ridged, like our own, and some smooth. They had been working on their experiment for a while when they finally discovered that ridges increase skin sensitivity, vibrating as our fingertips glide over surfaces. This helps us sense what we're holding and allows us to detect texture.

And because fingerprints are made up of arches, loops and whorls, which point in different directions, they came to the conclusion that we can sense what we're touching whichever way we hold it.

1.11 (Speaking Part 1)

Examiner: Do you find it easy to talk to people when you meet them for the first time?

A: Actually, not all that easy. I sometimes get stuck for words and let the other person do all the talking. Sometimes it's OK. Like at a social event and we both know the host, then there's something we've got in common to talk about. Whereas at other times, like at a work interview I might get a bit tongue-tied. Not good!

B: Quite easy, I'd say. I like meeting new people.

1.3EB (Speaking Part 1 – Exam boost)

1

Examiner: Where are you from?

Candidate A: The south of Italy.

Candidate B: I was born and brought up in Italy but the family moved to Sweden because of my mum's job when I was two. They loved the way of life there so much that they stayed and I consider myself more Swedish than Italian now!

Candidate C: I'm from in France. Is a small village near of the capital city.

2

Examiner: What do you do here?

Candidate A: I am staying here for two weeks and then I'm going back to my home town.

Candidate B: At the moment I'm studying at Uppsala University. It's a course for interpreting, which I have to say I'm finding both challenging and enjoyable. I'm in the second year of a three-year course.

Candidate C: I work as a waiter in a restaurant.

3

Examiner: How long have you been studying English?

Candidate A: Oh – a long time – it must be eleven years now. I started learning quite young, at primary school and then continued at secondary.

Candidate B: I first started when I was six years old. I was in a small group of students and we all studied English and Italian. Then when I moved to secondary school, I dropped the Italian and concentrated on the English, because I thought it was a more important language. I regret dropping the Italian because it's also useful and I think I might take it up again when I have enough time. There are evening classes at my local college or I could take an online course. That might be …

Candidate C: About ten years, I think.

4

Examiner: What do you enjoy most about learning English?

Candidate A: I like the pronunciation. I think English is a very musical language that sounds very attractive! However, it's also tricky to pronounce correctly, but I try my best. I also enjoy being able to exchange emails in English with my friends in England.

Candidate B: It's a difficult language and I think the grammar is particularly hard. For example, I find the tenses very confusing and of course, the phrasal verbs, too!

Candidate C: I enjoy the vocabulary games we play in class.

1.12 (Speaking Part 1)

Examiner: Would you say that you lead a healthy lifestyle?

A: Yes, I do. My lifestyle is very healthy.

B: No, not really, I'm afraid.

Examiner: Do you feel that your week includes as much free time as you'd like?

A: Yes, I have a good work-life balance.

B: No, I don't have much free time during the week.

1.13 (Writing Part 1)

OK, so this game is called Room 101 and it's about imagining there's a room where you could lock away some of your pet hates forever! In case you're wondering where you've heard the name before, it's from the book *1984* by George Orwell and it was a room where people were sent where they confronted their worst nightmares! For Winston Smith in *1984* it was rats! Apparently, George Orwell based this on Room 101 at the then BBC offices where he had to suffer really long, boring meetings. So, since then – the phrase 'I'd love to put that in Room 101' refers to things we'd like to get rid of. Hence the game. For you today I'd like you to work in groups of four. Three of you need to choose a pet hate – it can be as quirky as you like. For example, mine might be soap operas, or chewing gum, or Maths! Then you talk for a couple of minutes about why this should go in Room 101. The others should say why they disagree. Finally, the fourth person decides which of the three items should go in. So, you need to be as persuasive as possible. OK? Right, first you have some time to think of a pet hate and why it should disappear forever …

1.1GF

See Ex 4 on page 99.

1.1VF

1 Those stripes really do help disguise the tiger in the long grasses don't they?

2 So, we balanced this packet of flour on top of the door and when Denzel came into the room he got covered in white powder!

3 I find jogging is actually a great way to let off steam and chill out.

4 Don't believe everything Michael says – he only does it to make everyone think he's super confident and not afraid of anything but it isn't true.

5 There's really no shame these days in going to the cinema alone but it used to be considered a bit sad if you had to go on your own.

6 Whether you like the idea or not, humans are classed in the same group of animals as monkeys.

7 The burglar must have been wearing gloves as there are no marks on anything that's been disturbed.

8 Look! He's about to launch himself off the cliff, into the air! I'd love to go paragliding!

1.2VF and 1.3VF

See Ex 7 on page 115.

Unit 2

2.1 (Opener)

Lecturer: K2, K2 – a mountain of mystery and the focus of many people's obsession! Today we'll be finding out more about this enigmatic natural feature. But first up I'd like some input from you. Most of the great mountains in the world have romantic or poetic names – think of Everest, The Matterhorn, Siula Grande … So, why should the second highest mountain of them all be so simply named? K2? It sounds more like a mathematical formula than one of the most beautiful mountains in the world. Any ideas why it's called that?

Student: Is it something to do with it being the second highest?

Lecturer: Good try – but no. It was back in 1856 when the mountains in the Karakoram Range – that's on the border between Pakistan and India – were being surveyed. This mountain just happened to be second on the list. The first mountain they checked out was K (for Karakoram) 1, the second K2, and so on. With other mountains the surveyors would return and get the local name for a mountain and that was generally how it came to be known – but K2 was so remote, there was no real local name, so K2 it remained!

And it's not only famous for its odd name. From the outset it gained the reputation of being a 'savage' mountain and continues to challenge the most daring climbers in the world. None of the eight thousanders (the 14 mountains over eight thousand metres) are a pushover for mountaineers but K2 presents particular challenges. Being nearly a perfect pyramid with steep ice slopes and hardly any relief on the way up to the summit, it was considered unclimbable for a very long time. Several attempts were foiled by outbreaks of disease and sickness but eventually the mountain was summited by an Italian team in 1954. Since then people have conquered K2 only 300 times. And surprisingly, most of those successes were achieved without the backup of additional oxygen, in order to reduce the

weight of the climbers. There have been recent breakthroughs in how oxygen is carried, and this means that it is used more frequently these days. However, K2 still manages to defeat the best – it is a dangerous mountain, prone to avalanches, and setbacks caused by appalling weather conditions have prevented the mountain ever being climbed in the winter – the only one of the eight thousanders that hasn't. The outcome of many of those failed attempts can be found in the mass of literature about the mountain, and several films and documentaries. So, I recommend you check them out.

Now, I mentioned earlier that …

2.2 (Reading and Use of English Part 6)

Presenter: Anna, what's your view?

Anna: They say you shouldn't make decisions late at night, because your brain is tired, but quite honestly some of the best decisions I've made have been just before I've gone to bed. I guess maybe because I've cut straight to the chase and not wasted time going backwards and forwards through a lot of options!

Presenter: OK! What do you think Ben?

Ben: Yeah, Anna's got a point, but sometimes I'll decide something last thing at night and then in the morning think – oh no, what was I thinking? It does sometimes pay, in my book, to delay a decision until first thing, when your brain is fresh and can think through all the ramifications.

Presenter: And how about you, Jessie? What are your thoughts?

Jessie: Well, it surely depends on the type of decision, doesn't it? If it's a straight choice between chocolate ice-cream, or strawberry, then the consequences don't matter – and I could easily make that decision at any time! But if it's about where you want to study, or about extra work you're being asked to take on, then it's a completely different matter. Those kinds of decisions need a clear focus and a fresh mind – and for me that means mornings.

2.3 and 2.4 (Reading and Use of English Part 3)

Presenter: Today's phone-in is all about losing things! With me in the studio is Georgia Williams, memory expert, who's here to advise our listeners on how to avoid misplacing everyday items. We've got Karl on the line. Karl, tell us about your experiences of losing things.

Karl: Well, I'm always doing it! Whenever I'm about to leave the house, I spend a good few minutes trying to locate my car keys or wallet or phone. It drives me insane! I do come and go at irregular times cos I work varying shift patterns, and I was wondering whether that's anything to do with it? I'm not particularly disorganised – my house is generally pretty neat and tidy, and I'm punctual and everything. But I'll end up finding my door keys in the bathroom or my phone charger on top of the fridge. I seem to have this inability to keep track of the stuff I need every day. What's wrong with me?

Presenter: Georgia?

Georgia: So, finding your keys in the bathroom isn't as illogical as it might seem and you aren't an irresponsible person, so don't give yourself a hard time! These days, we're always trying to do two things at once. Undoubtedly, what's happening is you're coming in from work tired, and you go straight to the bathroom to freshen up, or to the fridge for a cold drink. The keys are still in your hand, unnoticed – you're thinking about what you're going to make for dinner, perhaps – and you just pop them down and dismiss them from mind. Now, you probably have a couple of places in your home where you think you always keep important things, so when you go to that place when you need them and they aren't there, you're impossibly confused – you always put them there, you think! But your mind's misleading you. You don't actually remember whether you put the keys down where they 'should' be or not – it's such an insignificant thing in your busy life.

Presenter: Karl?

Karl: Yeah, that makes sense – I'm just distracted, I guess. So, what's the answer?

Georgia: Well, this constant mislaying of things is obviously causing you some distress, so you need to reconsider what you do when you arrive home – make a conscious decision to be aware of how you interact with your surroundings. Pause at the front door, look at your hand with the key in it. Enter your house and put the keys down immediately in that special place – the little bowl or the hook in the cupboard. And keep that place free of other stuff – do a little reorganisation if need be.

Presenter: Karl, does that help?

Karl: Yes, I'll give that a go – thank you!

Presenter: Now, on to our next caller, who …

2.5 and 2.6 (Listening Part 2)

I set up my catering company a couple of years ago, and have two assistants. We specialise in Japanese food and recently won the silver award at our region's small business awards. Our company was nominated by our customers. It was only when we were shortlisted to attend the ceremony that we actually looked into the aim of the awards, and determined that they not only celebrate small firms' achievements and contribution to the local community, but also aim to raise their profile. The founder of the awards believes that small companies like mine are an undervalued sector of the national economy.

We were super-excited to win and in my acceptance speech I was keen to extend my gratitude to everyone who supported us. Our company's built on values like integrity and loyalty. However, first and foremost in our approach is sustainability, which remains a buzzword for businesses – and that's what we were recognised for. We source ingredients locally, avoid waste wherever possible, and we take health and nutrition seriously, too.

I became a convert to Japanese food when I travelled in the country after catering college and I wanted to bring some of that 'deliciousness' back to my home town. We produce top-quality Japanese dishes from scratch. These include traditional favourites, like tempura, with innovative twists, and I like to class our food as a sensory feast – indeed, that's what we've got written on our promotional material! We think visual elements are equally as important as taste and smell.

Now that we've won silver, people keep asking us what's going to happen going forwards. Until now, we've put our energies into catering for small private functions, like dinner parties or birthday lunches in clients' homes. Weddings are unlikely as they're beyond our scope – though corporate hospitality is something that's very much on our radar. We've no plans to open a restaurant for the time being but we have every intention of forging ahead with the social events side of things.

You never know, maybe we'll win gold next time!

2.1EB (Listening Part 2 – Exam boost)

A: Psychologists believe that those who achieve bronze in a race are actually more satisfied with their position than those who got gold or silver. The person who comes last will be disappointed but probably aware that they were never likely to win, and is therefore probably relatively philosophical about it – at least they finished the race!

The winner understands that they have to try to maintain their position at the top, and although they feel overjoyed in the moment, they soon come down to earth with a bump. The runner-up can feel dissatisfied because they think that if only they'd done just a little better, they might have won, whereas the person who comes next is often grateful to have made it to the podium at all.

It's difficult to banish negativity when we don't win because we find it tricky to get out of what we might call a 'thought loop'. But with the aid of meditation and neurolinguistic programming, we might find a way to reframe our experiences.

B: My name's Petra and I recently completed my first five-kilometre run. On the day itself, we were all in the preparation area, warming up for the run. I wasn't even sure I'd have the strength to get to the finish line, and stood in awe of a lot of the runners who were dashing backwards and forwards in what looked like an attempt to deplete all their energy reserves before the race had even begun!

I'd done some training for the race but I didn't fancy my chances of winning. I'm not very tall and have a short stride which I knew meant I wouldn't be able to keep up with many people. I didn't really expect to be running alone on my own at the back – though that's pretty much what happened. But my positive attitude kept me going to the end.

When I got there, most runners had already packed up and gone home. I was indeed last, but I wasn't embarrassed – someone has to come last! And only a few weeks before, I hadn't been able to run to the end of my street and back. I actually felt powerful – I'd achieved my goal and am enthusiastic about starting to train for a marathon.

2.7 (Listening Part 2)

Some people say that when you come second, you don't win silver, you lose gold. As a sports psychologist, I'd argue against that. Let me tell you why.

The person who comes first in a major sports event will always come under a lot of scrutiny because the public upholds them as the ideal. Winners therefore place a lot of pressure on themselves to keep coming up with the goods – they believe that now they've got to the top, they have to stay there.

There's no such spotlight shone on the runner-up, but being 'almost best' means still benefitting from the perks – there's recognition of your achievements from the sporting community, if not the fame and fortune that goes with winning. Being second is no bad place to be.

In fact, some studies have shown that coming second is actually beneficial in some ways, not least of which is life expectancy – the difference between those who come first and those who come second is remarkable. And second-finishers are more likely to achieve financial success after their career in sport comes to an end.

Even though those who finish in first and second places are pretty identical physically and neurologically, it's thought that trying to win every competition is harmful to the health of those who pursue victory at all costs. But the motivation levels of those who fail to reach the top spot are usually high.

How does it feel to come second? Those who believe they've put up a good fight are likely to have mixed feelings. It's painful coming second after all your hard work and dedication, but while winners may feel momentarily elated, many second-finishers may feel optimistic, too, because there's always next time, whereas those used to winning feel let down when they don't get gold.

Wanting to be the best is an increasing trend. The expectation's not only enormous in sport but for young people making their way in life, too. They have to deal with fierce competition and there are a lot of demands placed on them – they're expected to get the best grades at school, a place at a top university and subsequently a great job.

But coming second – in sport at least – still means being one of the best, and from what I've seen, those still trying to reach first position are also still figuring out how to do it, relishing the opportunity for experimentation, whereas those who already have a few wins under their belt tend to be afraid to try anything new, sticking to tried and tested preparation for events.

Many highly respected sportspeople never get first place, but are, in my opinion, still heroes. They may never be champions, but are often influential in their field. My personal favourite is the racing driver Stirling Moss, who, when he could once have taken first place, defended his opponent against disqualification, and gracefully accepted second place. He'll forever be remembered as the greatest driver never to win the World Championship.

2.8 (Reading and Use of English Part 4)

I part-own a bicycle shop – no ordinary one, mind you! We're a social enterprise, and our primary objective is to achieve positive social impact rather than generate profit.

We offer quality second-hand bikes that are priced for any budget and provide a full repair and maintenance service, too. We also do charity work, and hundreds of bikes have been donated to overseas communities which had never been given access to them before. We support a local charity for young people with disabilities, providing work experience opportunities and aiding independence. We also have our own coffee shop where you can have a cuppa while your bike is being fixed. We'll try our hand at restoring bikes of any age and condition, and we've even written our own guide to local bike routes which is called 'Bike your way round Brighton' – the city where our shop is located. We've been operating for ten years now and people say we're the best bike shop in the area. I hope that will still be being said in another ten years.

I love messing about with bicycles but even more important to me personally is the time that's spent learning about those who come into our shop. They make me laugh with their biking anecdotes. I even heard about a tandem ride this way not long ago, that was being organised in order to raise money for a charity for visually impaired people. I decided to take part and got people to sponsor me like the other participants were doing. A lot of money was raised this way, which was great! It was fun, too.

As you can imagine, I'm a firm advocate of cycling and believe it's a skill that should be taught to everyone when they're young. Not enough is being done to ensure all school-age children are able to ride a bike, and recently, campaigns have been being held around the country to make cycling proficiency part of every school curriculum. It's been found that not only is cycling fun and great for physical fitness, but it promotes coordination and mental well-being, too. Life on two wheels is the best life!

2.9 (Speaking Part 2)

It's something we've probably heard many times. 'Hey – did you know you've got a double? I saw someone in town yesterday and she looked exactly like you!' It can be intriguing to think there's someone out there walking around with

the same face as you. And the fascination with finding a doppelganger has even resulted in websites where you can enter your facial details and search for yours! The science behind doppelgangers is that the probability of finding a true doppelganger – that is someone whose face matches eight specific measurements – is one in a trillion. Extremely unlikely! However, the odds reduce to one in 135 when we talk about 'look-alikes'. These are people who an observer would identify as a 'double' because of a strong similarity of features. This is basically because our brains look at the whole of a face, and not the individual parts. They adjust what we see to fit an expected pattern. So, yes, your friend may well have seen someone who looks like your double, but it wouldn't be a true doppelganger! That really would make the headlines.

2.10 and 2.11 (Speaking Part 2)

Ah – interesting pictures! As you say, both pictures feature people who look similar to each other, but the focus of similarity is different in each picture. Whereas in the first picture the children have a strong physical resemblance, implying that they are probably brothers, and very likely twins – in the second picture the two people are connected by their uniforms, which identify them as police officers. A major difference between the pictures is clearly the location. The children are wearing seatbelts in the backseat of a car, whilst the police officers are in the open air and observing the crowd at some sort of sporting event. Both pairs of people are interacting with each other in different ways. While the twins are interacting physically – play-fighting – the police officers are working together and maybe they are even commenting on the event they are watching. I would say that the relationship between both pairs of people is good. The twins have a strong family bond which allows them to play-fight with each other, without getting really angry. The police, on the other hand, have respect and I would imagine, confidence and trust in each other. The way they're standing appears to show that they're relaxed in each other's company, whilst remaining professional. As for how they might be feeling, I would say that the twins are likely to be feeling a bit frustrated whereas the police are undoubtedly relaxed on the surface but are still probably on the alert for any problem occurring that might require them to step in.

2.12 (Writing Part 2)

A: Sequels? Me? I'm really in two minds about them. In my experience, if you've got a really favourite film and they bring out a sequel, it never, ever lives up to expectations. And that's usually because you're expecting something impossible. We want to get the same reaction as we did with the original, but sadly, that can't happen. Some sequels try but end up being just a weak version of what made the first so good. But that doesn't stop me, personally, from hoping each time that I'll be proved wrong.

B: I love sequels – because the original film introduces the characters and the storylines and then the next film develops it. You get to see what happens to the characters down the line. No one wants a good film to end, and having sequels means that it doesn't! Admittedly, sometimes if it develops into a series it just goes on and on, there are going to be spin-offs and the quality sometimes gets diluted – but in my view, they're still fun to watch!

2.1GF

See Ex 5 on page 101.

2.1VF

1 For me, the film was ridiculous. The plot was so …

2 Scientists have discovered a new way to treat colds and flu. Apparently, it's a real …

3 The new book I'm reading is excellent. I was so … in it that I forgot the time and missed my train.

4 My brother's … to sneezing a lot at this time of year.

5 Using the company car was the main … at my last job.

6 Although he didn't eventually win the award, Morgan was delighted to have been …

7 What the novelist said just doesn't make sense to me. Starting a book by writing the ending first just seems …

8 The new one-way system for traffic through the town centre simply isn't working. People have had doubts about it from the …

2.2VF

See Ex 6 on page 117.

Unit 3

3.1 and 3.2 (Opener)

A: You know how we had to research a useful app for our technology project?

B: Yeah – have you found something to write about?

A: Yep – the what3words app.

B: Oh. Isn't that just for use in an emergency? Don't we need to choose something with more functions?

A: Oh, it's got more. As you say, it's useful for, like, if you're out for a walk on a mountain somewhere and you fall and hurt your leg and need someone to come and assist you.

B: Right, so you use the app to provide your exact location to the rescue team. But how?

A: Well, every three-by-three-metre-square area in the world has a unique combination of three words that refer to it. You consult the app, tell the rescuers and they can get you out of wherever you are really quickly.

B: But you said that isn't all the app does.

A: Well, even if it was, about a hundred and seventy countries use it this way! Anyway, it's used by the United Nations, too, to deliver emergency aid, as well as for postal services in some countries – I think Mongolia was one. More and more companies and countries are adopting the app. Incredible, really – it's such a simple idea, yet so useful.

B: Cool! I wonder how it all came about, then? The app, I mean.

A: Well, I looked it up, and it was something to do with this guy who worked in the music industry and travelled all over the world – he spent loads of time trying to locate places and turning up at the wrong place, so he and his mate sat down and came up with the idea. So, it all stemmed from one guy repeatedly getting lost! Apparently, he once even did a sound check at the wrong wedding! Stuff like that can really set you back in terms of reputation.

B: Oh, that's hilarious! A lot of work must've gone into it, though. Impressive.

A: It is, and it's compatible with navigation apps as well. So, you can put in the three-word location, then use Google Maps, for example, to take you there.

B: Cool.

A: Yeah – and then businesses don't have to mess about with giving directions to suppliers or customers all the time. Like, 'Take the track between the library and the town hall and it's the yellow door partly hidden by a bush opposite the warehouse etcetera, etcetera. I read that there are vehicles which already incorporate the technology. You get in, say 'blah, blah, blah' and are navigated straight to that yellow door.

B: Brilliant. Hey, maybe they'll extend what3words to the universe if space tourism ever becomes a reality!

A: You never know. It'll be fascinating to see what future applications it might have. I think eventually we might do away with stuff like road maps altogether.

3.3 (Reading and Use of English Part 7)

Good morning everyone. It's good to see you've all come armed with notebooks, cups of coffee and – I hope – a lot of questions for me! As your schedules indicate, today's talk is about preparing to give effective presentations and we'll be looking at types of research, structuring your talk and the most effective ways of delivery. To start with, research – remember that whatever you find online needs to be checked, checked and checked again! You can't rely on one source. There are many ways to do this – there's reverse tracing of photographs or other visuals, checking out other reports containing similar information and also looking at the website itself and its history. And remember, …

3.4 and 3.5 (Reading and Use of English Part 1)

Had you asked people half a century ago what was visible from space, they'd undoubtedly have said with confidence, 'the Great Wall of China'. The idea that this is the only man-made structure you can see on Earth from space has been disproven time and again by astronauts, who confirm that it is exceptionally difficult to make it out with the naked eye, even from a low orbit. What's more, you definitely can't see it from as far away as the Moon.

So, what can astronauts see from space? Some of what I'm about to tell you may come as a surprise! As far as man-made structures are concerned, the Pyramids of Giza in Egypt, which are highly symmetrical, are easily identifiable, but the most distinctive features, say astronauts, are long roads and bridges, which dissect the landscape in straight lines. And when night falls on the third rock from the sun, cities light up and become astonishingly evident.

What about geographical features? The Great Barrier Reef in Australia, the delta of the Indian River Ganges, the Grand Canyon and the Himalayas are not only remarkably beautiful on Earth but also when seen from space, too. It's relatively unsurprising that such impressive aspects of the natural landscape would be visible, I guess, but would you expect to see humans? The likely response is 'No', and the accurate response is, 'Not individuals'. But very large congregations of people, numbering millions, such as those which gather for the Kumbh Mela festival in various sites around India, have been picked up in images from space. Other visible signs of life include massive herds of migrating cattle, shifting across the landscape in black clouds.

And as we deepen our understanding of the planet we call home, and analyse photos taken by satellites, we now know that the gorgeous patterns in our oceans are phytoplankton blooms, the sandy-coloured swirls across the land are dust storms, and those huge smoking plumes reaching up into the sky are volcanic eruptions. We can even identify the changing seasons, with huge snow-covered patches and vast swathes of scorched earth.

For everything we can see, there are a million things we can't. It isn't that they're necessarily too small, but what complicates matters are the atmospheric conditions, height of orbit and how powerful the imaging technology is. And there are some unsolved mysteries out there regarding other planets and what we can see of them from Earth. But as we accumulate knowledge on these planets, perhaps we'll eventually be able to recognise all kinds of shapes and shadows even further afield.

3.6 (Listening Part 3)

Presenter: Psychology professor Michael Miller is with me on the programme today to have a chat about the concept of the 'third place'. For those unfamiliar with the term – what does it mean?

Michael: The third place is somewhere you regularly spend time that isn't work or home. You hang out and catch up with the people there.

Presenter: OK, so, I often go to a particular café during my lunch break – is that my third place?

Michael: It's the perfect example! And let me ask you, why that café, and not another?

Presenter: Well, they do excellent cheese toasties and coffees, for one thing! And I've struck up a kind of friendship with the owner now. We're both interested in motor racing, so we often have a chat about the latest races, and I sometimes get talking to other regulars. I actually feel like I know some of them quite well now, though I don't see them outside the café socially.

Michael: Great, so what you're actually doing by visiting the café is all about getting some social contact. You could probably just make your own cheese toastie, maybe even a better one!

Presenter: Right, that's interesting. It was actually the first café I went to after I moved here. And I almost didn't go in at first, cos I could see what appeared to be an established group of friends hanging out, laughing and chatting. It was a bit intimidating but I so wanted to be part of it. Maybe you're onto something!

Michael: You wanted to belong. Most likely you hadn't established firm connections yet if you'd only just moved to the area.

Presenter: Apart from a couple of good friends, not really. Anyway, I soon discovered that the people in the café weren't a bunch of mates but individuals who just call in on a regular basis. It's a dynamic group, too – new people arrive, others leave … I could be there three weeks in a row or not go for a while and the warm welcome's exactly the same when I turn up again.

Michael: Well, that's the very definition of a third place!

Presenter: So, Michael, do you think that the idea of the third place will …

3.7 (Listening Part 3)

Extract 1

A: I used to go to this local meetup where I'd chat about philosophy and stuff but it's been cancelled. I really enjoyed it as well. It's like people have moved on and I'm left with a hole I'm not sure how to fill.

B: It can be tough, change. I'm not saying you won't adapt but …

A: I know!

Extract 2

A: You know, I've actually been looking for something new to do, somewhere to go. I need a deeper connection with this place we live in. Something beyond my apartment, the factory where I work and all these massive skyscrapers I walk amongst on my way to and fro!

B: Something that gives meaning to the concrete jungle… I get it. They have members' events at the museum every week – you love museums, how about that?

Extract 3

A: Didn't you just say you walk around a lot? Maybe the city itself is your third place!

B: The streets? Well, there is a sense of belonging – I'm from here, after all … It's a fascinating idea, what you just said. I'll give it some thought. I do get into conversations with people when I'm out and about … I'm not entirely satisfied it could be called my third place, though.

3.1EB (Listening Part 3 – Exam boost)

See Ex 1 on page 32.

3.8 (Listening Part 3)

Presenter: Today I'm with Julia Bernardi and Adam Spright to discuss the concept of the third place. Professor Oldenburg, the sociologist who first wrote about the idea, said that third places have common characteristics. Adam?

Adam: The third place, wherever it is – your book club, coffee shop, wherever – is unprejudiced. Everyone there is on the same level and social status is irrelevant. You can come and go without anyone taking exception to that. If you don't turn up for a few weeks, it's no big deal – when you return, you'll be greeted warmly. That's key to their success. And that's a stark contrast with work or home – imagine not turning up to work for a few days. Your unexplained absence would be a grave cause for concern, if not, get you fired! Similarly, your homelife might suffer if you went AWOL for a while.

Presenter: What does Oldenburg say are the most common third places and why? Julia?

Julia: Let me just set one thing straight. Many assume third places are the physical places themselves. On the contrary, it's their social aspect which matters. Generally, we consider the third place to be anywhere people gather that isn't the workplace or home – coffee shops, community centres, other places where people meet on a regular basis. You might pop in on your way past, or plan your visit in advance. The emphasis is on conversation, so, the gym, say, where you're working out hard and probably couldn't string a sentence together, doesn't meet the criteria. However, enjoying a coffee or energy drink in the leisure centre café with others after your workout, probably would.

Presenter: What do you both think is the most important function of third places?

Julia: One I find interesting is Oldenburg's concept of social capital – to put it simply, people from different backgrounds who get to know each other develop trust, which enables society to function effectively. There are economic advantages, too – money's generated in third places and you may gain personally by finding out about an employment opportunity, for example.

Adam: When we're at work or at home, we're in contact with people similar to us, whereas in the third place, we're more likely to encounter people from different walks of life. That's the perfect learning opportunity in terms of cultural awareness and sensitivity to people from different social groups.

Presenter: Some workplaces have embraced Oldenburg's concept. Julia, Adam, how does the third place work – at work?!

Julia: Companies, particularly ones occupying sizeable premises, are incorporating spaces where employees can take time out, chat in a relaxed environment away from their desks – for example, a separate café in the building. It's a far cry from the outdated belief that staff are more productive the longer they're at their desk. I must admit though, I'm unconvinced that a place within the work building offers the same freedoms as those elsewhere.

Adam: We now know it's nonsense that people should be at their desks in order to be productive. Flexibility creates innovation, talking's what allows companies to come up with the next big thing. Personally, I think you need to get away from the office altogether. Third places in the public domain are better for the individual's development.

Presenter: What about social media – is that a third place? Adam?

Adam: Oldenburg would insist that face-to-face interaction's what constitutes a third place. Virtual spaces don't meet this criterion. The word 'virtual' seems far from the essence of Oldenburg's concept. You can establish a rapport with someone online – I'd hesitate to call that a real relationship in the sense that you gain a deep understanding of someone in person, though. The screen creates a physical barrier, which doesn't exist at actual third places in the real world. That's not to devalue the people we meet in virtual spaces, and the opportunity to establish friendships worldwide is fantastic. Some argue there are similarities in terms of characteristics like interaction and approachability, which are crucial elements of the third place. That isn't enough in my opinion.

Presenter: Finally, some philosophers have argued there's a fourth place. Julia, Adam, what do you think about that?

Julia: My understanding of this is that elements of each place – first, second and third – combine in different ways, and they're no longer as separate as they once were. Many people round the world, though they're in a minority, live and work in the same place, and there are third places within second places – remember the chill-out spaces at work? Where elements of all three places combine, some philosophers call it a fourth place. I'm so far unconvinced about this but I might be persuaded, given time.

Adam: This hypothesis is in its early days and I've yet to come round to the idea. There might be something in it – I'll be looking into it. I get where the thinker who came up with the concept's coming from, but it does need further development.

3.9 (Reading and Use of English Part 2)

The Brontë family, who lived in the early to mid-1800s in England, consisted of six siblings, three of whom – the famous sisters Charlotte, Emily and Anne – remain some of the country's most celebrated authors. They each started writing stories at home at a young age, and all three went on to become published novelists, with varying degrees of professional success. While the eldest sister, Charlotte, wrote four novels, and had started a fifth before she died, only three were published during her lifetime. Anne wrote two novels, but Emily published only one. Not only did the sisters write books now considered classics, but they were also held in high regard for their poetry.

Today, I'd like to compare two of the sisters' most famous and widely read novels: *Jane Eyre* and *Wuthering Heights*, by Charlotte and Emily, respectively. Both are essentially love stories, but many believe *Jane Eyre* to have a more plausible storyline, whereas *Wuthering Heights* has a much more daring plot.

Jane Eyre – the main character in the book of the same name – is an isolated young girl at the beginning of the novel but gradually becomes a strong and intellectually capable young woman during the story. By the end of the book, she is powerful, independent and happily married to Rochester, the man she loves. Since she's an admirable and straightforward character, readers cannot help but identify with her. Cathy, the protagonist in *Wuthering Heights*, is an altogether different character. Although she is loyal and determined, she is also wild and has a stubborn streak which makes her more difficult to warm to.

Whatever your preference for the characters of Jane or Cathy, you'll certainly find plenty of people who agree with you. But readers tend to be split on the subject: either they're touched by Jane Eyre's honesty, dignity and triumph over adversity, or they prefer Cathy's darker, more passionate and complicated character. However, when it comes to the structure and style of the writing, many critics concur that *Jane Eyre* is the superior novel.

Why is this? Well, for much of *Jane Eyre*, it's as though the character is talking to her audience, and on occasion she does indeed directly address the reader. Charlotte draws on everyday experiences everyone can relate to. What's more, she'd already written one novel before *Jane Eyre*, and had an understanding of how to develop a storyline successfully. Emily's novel is considered a little disorganised in terms of structure and story-telling. Even so, Emily Brontë is upheld as an ambitious and brave writer, and indeed, both Charlotte and Emily are now celebrated as feminist writers.

Personally, I love both novels and as yet, have found it impossible to say which I prefer because, although they are so different in style, they are equally compelling. And both books must have been highly thought of throughout their history or they wouldn't have endured as favourites in the field of literature.

Before I finish, just a word about the youngest sibling, Anne Brontë, and her writing endeavours …

3.10 and 3.11 (Speaking Part 3)

A: OK, so for a successful launch like that the whole team would have had to really pull together, wouldn't they?

B: I couldn't agree more. Good teamwork is fundamental. There's no room for individual egos at all.

A: That's a great way of putting it! Although each team member has their own role and uses their own talents, it all has to come together in the end and that's where the real teamwork comes in, don't you think?

B: That's true, but don't you think the team members have to support each other all the way through a project like that, working together, not just in the final stages?

A: You've got a point, but I'd say that it's more a case of knowing the strengths of the individual team members and using them to everyone's advantage to contribute to the end result.

B: You're right, but I think you need to run ideas past people to get constant feedback and keep people in the loop as to how you're doing. Anyway, moving on, in addition to teamwork – another important factor in my view is motivation, don't you agree?

A: Absolutely! And that comes from the work environment, doesn't it? I mean, how your work is valued and appreciated by the management and what incentives there are.

B: That's it in a nutshell. If your work is undervalued, you won't go the extra mile for the company.

A: Although, having said that, in my experience, if you feel passionate about something, that can be motivation in itself, what others think doesn't necessarily make much difference.

B: I don't entirely agree with you there. I'd say that without encouragement, your passion may subside a little!

A: Oh – very nicely put! And an incentive like a bonus usually focuses people well …

3.12 (Writing Part 2)

Presenter: … and now Rob will answer some questions from listeners. Yes – hi there – what's your question?

Caller: Hi – my uncle is taking part in an Ironman challenge and what he tells us about the triathlon is fascinating. Firstly, I didn't realise the word came from Greek – even though, obviously, it wasn't an actual event at the original Olympic Games! But he was talking about the calories you can use up – Is it true that you can burn up to 10,000?

Rob: Well – Ironman is really tough, and well done your uncle for attempting it! But yes, generally speaking 10,000 is about right.

Caller: He's not doing the annual championships in Hawaii. He says it's pretty hard to qualify for that, and to be honest, he's not that young – although he is fit.

Rob: OK! Well, the oldest person to finish an Ironman challenge was eighty-five – and I'm guessing your uncle isn't that old yet!

Caller: Well, there's a chance for him then! I also wanted to ask you about going into triathlons myself. Is it hard for a beginner?

Rob: It's a great event – really. Obviously, it's an endurance race but since the first official triathlon was held in 1974, many different events with different distances have been open to competitors. As long as you can swim, cycle and run, you can enter. Swimming is possibly the most worrying for beginners because it's usually in open water and you have to jostle other people, deal with the waves and head in the right direction! So, getting some swimming training is vital. Then, transitioning to the bike takes practice. The final element – the run – can really test your stamina – but train hard and you can get there!

Caller: Thanks!

3.1GF

See Ex 5 on page 103.

3.1VF

1 I'll let you know what's going on with our travel arrangements as and when I get any news.

2 The election results were so nail-bitingly close that I couldn't tear my eyes away from the TV.

3 Hang on a minute! You said that you didn't want the promotion but you've accepted it? What changed your mind?

4 Travelling on your own means you get to meet a range of people from all nationalities and all kinds of backgrounds.

5 Matt was so nervous he kept falling over his words and pausing. It was difficult to understand what he was trying to say.

3.2VF

See Ex 7 on page 119.

Unit 4

4.1 and 4.2 (Opener)

Presenter: OK, so it's four o'clock. It seems an eternity since lunch time and your stomach is rumbling away – what do you do to stave off the hunger pangs until dinner time? In my case, it's reach for a packet of biscuits – with of course a mug of tea to wash them down. It's a habit I've been indulging in since my teens and apparently the Duchess of Bedford felt exactly the same way in the mid-19th century! Our British custom of afternoon tea dates back to 1840 when the lady in question asked for a plate of bread and butter, a pot of tea and some cake to tide her over until dinner. Afternoon tea became fashionable and has been part of our food culture ever since. These days you need to go to an upmarket hotel or tea room to get the full treatment – scones with jam and cream, small cakes and dainty sandwiches – often with cucumber – tea in china cups, and the experience will probably set you back rather a lot of money! It got me thinking. We assume that our daily food intake revolves around three meals a day – breakfast, lunch and dinner, in some shape or form – but in fact, if you look round the world, many countries or cultures actually favour four rather than three. So, earlier I asked listeners to phone in with their experiences of unusual mealtimes in countries they've visited and I have some callers on the line. Hi – is that Sara?

Sara: Yes, hi! We definitely need an extra meal – and when I went to France last year to stay with my French friend's family, I realised that the French also have an afternoon snack – in style! The family I stayed with observe the tradition of le goûter. Because the French tend to

eat later than we do – more like 8 p.m. – everyone needs something mid-afternoon, having worked up an appetite during the day. It's expected that children after school will have le goûter, which can be quite substantial – and unlike our afternoon tea, in France it's usually sweet – cream cakes, pancakes, chocolate (the kids in my family actually had a baguette with a chocolate bar inside!) And it can be quite a social occasion for the parents, too. They invite people round and you're more or less expected to bring some homemade cakes and pastries.

Presenter: Ooh, baguette and chocolate – my mouth is watering! Gosh and yes, I remember now, my French friend used to ply me with slices of bread with thick butter and cocoa powder on it! Very decadent! Thanks, Sara – now, do we have Jason?

Jason: Hi there – my favourite fourth meal has got to be the Polish second breakfast! I was working in Poland and when I was offered a plate of sandwiches mid-morning, I passed on it, thinking that it would ruin my appetite for lunch. Big mistake – lunch didn't happen until mid-afternoon! I've heard since that in other parts of Europe, like Bavaria and Hungary, they have the same thing, and on occasions this can be quite big – like sausages and things.

Presenter: What a great idea. Sausages for elevenses. Nice one! Hope my boss is listening. Cathy – hi there. You studied in the USA, didn't you?

Cathy: I did and they have a great tradition during college finals week. It's something called a Midnight breakfast! The college kids stay up so late studying that a lot of colleges actually officially lay on a meal in the dining room called Midnight breakfast, to keep them going.

Presenter: That's such good thinking! I just remember lots and lots of black coffee and occasionally we'd rustle up something simple to keep our brains working! So, Cathy, what do they actually …

4.3 (Reading and Use of English Part 8)

If you live in the middle latitudes – that is north or south of the tropics – like Europe and most of North America – you'll be used to experiencing four distinct seasons during the year – spring, summer, autumn and winter, whereas the tropics, and the extreme northern and southern latitudes basically just get two; in the tropics – hot and dry and hot and rainy. In the far north or south – a long, cold, dark winter season and a short, light, warmer summer one. At least that's what has, more or less, been the case, until more recently. And we may not realise it, but so much depends on the seasons for us – when we plant and harvest crops being just one of them. It's not just humans that are affected by the seasons – animals, plants, insects, the whole delicate balance maintained in nature is controlled by the seasons and any changes can have far-reaching consequences. What has been evident to scientists for many decades is now becoming clear to us all. The seasons are changing. According to some statistics in the middle latitudes, summers are on average 13 days longer, and winters 20 days shorter than they used to be, and some experts are now talking in terms of two main seasons, rather than four, with transitional months in April and October. The reason is pretty obvious – climate change. Just a couple of degrees' warmer weather affects the whole planet and the seasons no longer follow expected patterns. And climate change? Well, it's down to us – humans have really messed up, and the changing seasons are one very clear way the planet has of telling us.

4.4 and 4.5 (Reading and Use of English Part 3)

So, we were tasked with the project of researching a symbol of luck in our own culture to tell the class about, and I've looked into the history and significance of the four-leaved clover.

What is a clover, first of all? Well, it's a small plant, which produces leaves with three distinctive 'lobes' – three connected parts which look like single leaves in themselves. Very occasionally the plant produces leaves with four lobes, and the discovery of one like this is considered very lucky. In fact, you'd be remarkably fortunate to even come across one, as the probability of that happening is one in ten thousand!

So, how did this tiny plant become such a symbol of good fortune? Well, even as far back as the Ancient Egyptians, people were offering them to newlyweds to bless the marriage and wish the couple a life of happiness and prosperity. That was around five thousand years ago, but other early cultures also believed in the power of the four-leaved clover to repel bad luck. Some of our early ancestors believed the four-leaved clover to have healing powers, and used them in medicine.

What about today? Well, some say that the four leaves represent faith, love, hope and, of course, luck. Some say that four-leaved clovers help you find true love, and put clovers in their shoes to carry them to their soulmate!

So, let's say you're hunting amongst the grass for a four-leaved clover. Should you be lucky enough to find one, what ought you to do with it? This is dependent on which tradition you choose to adhere to: some say that in order to benefit from the luck, you should keep your four-leaved clover hidden, whereas others dictate that you ought to pass it on to someone else, so that your luck will double, and they'll receive some, too!

It's probable that because four-leaved clovers are not commonly seen in nature that the beliefs around them have perpetuated. The rarer something is, the more special it becomes, however far from rational any belief surrounding that may seem. But whether you profess to believe in the existence of luck or not, I suspect it would take a strong-minded person not to hang onto a four-leaved clover if it came their way – I'd certainly be thankful if someone gave one to me!

4.6 and 4.7 (Listening Part 4)

A: Would you say you had a good sense of direction?

B: You have actually experienced my driving, haven't you?! North, south, east, west – I haven't got a clue which of the four compass points I'm heading towards! I'm the sort of person who doesn't even realise they've walked in a circle and ended up in the place they started at ten minutes ago. I don't know whether it's poor observation skills, getting distracted, or what. Actually, you probably think I'm joking but it can be really frustrating when I'm driving from one side of the city to the other and have no idea how to get there, no matter how many times I might've done it before.

A: Well, apparently there's some science behind it. Having a good or bad sense of direction, I mean. Some people can go somewhere once and no matter how complicated the route, they'll remember it next time they go – weeks, months or even years later. I read about it in this article – that's why I asked you – and it mentioned poor observation skills, too. You're obviously not taking note of clues in your environment or retaining them. That's why you can do the same journey repeatedly and still not remember how you did it last time. You're dismissing the visual evidence.

B: That actually reminds me of a programme that was on not long ago about cultures that navigate without technology or maps. They have a better sense of direction than cultures that do rely on those. So, they use nature – sea currents, stars – to understand where they're heading.

A: Right. Probably cos they've been doing it since they were really young, whereas many of us haven't. And the lack of distracting technology could mean they're more in tune with their surroundings.

B: So, I should pay more attention to my surroundings, then. But it's not as if I go round with my eyes shut!

A: Well, you're clearly not a walking compass, but I think it's something to do with the brain, too.

4.8 (Listening Part 4)

Apparently, people's sense of direction is affected by something that happens in the frontal and temporal lobes – the ones responsible for things like memory and vision. The larger they are, the better awareness of direction you're likely to have. And also, some people need more environmental cues to help them determine which direction they're facing – so I guess if they're in a field, they need more trees or a house on the horizon or something? The article didn't elaborate on that. But it did confirm that there are links with personality. More open-minded people or those who are more attentive will be better at finding their way. Oh, and they also said that if you believe you've got a good or bad sense of direction, you're probably right cos we've got good insight into that!

4.1EB (Listening Part 4 – Exam boost)

1 I live in the Arctic Circle, in a village almost as far north as it's possible to live. The extreme cold means agriculture is virtually impossible, so everything has to be bought in, leading to hiked prices. You don't see much of the sun during winter months and, of course, much of life happens indoors at this time due to the harsh conditions. Having said that, the incredible phenomenon of the Northern Lights flickering colourfully in the night sky really is awesome, and if you love snow sports, then you can't get much better than this.

2 I'm from the far south of my country, a region which isn't particularly well-off. There's a lot of unemployment, too, which unfairly seems to suggest to the rest of our country that we're lazy. Well, there are stereotypes in every country, aren't there, for people who live in different areas? So, I refuse to pay too much attention to comments about that. I wouldn't change where I live for the world, though. I know everyone, and everyone helps each other out. You don't get that kind of thing happening as much in big cities.

3 The eastern region I live in has some spectacular scenery, and the people are some of the friendliest you'll meet. This means it makes it onto many a tourist to-do list, to be ticked off. Though I appreciate that you shouldn't think of a place as 'yours' and resent those who come, the yearly influx does have an impact on resources. It's driven prices up, too, in restaurants, for example. But I completely understand what draws people here, and the upside is getting to meet people from all over the country.

4 We're a kind of forgotten area, here in the west of the country. It isn't that people don't want to see the stunning landscapes, but it takes a day and a half from the nearest city to reach us. You could hardly say tourism's had a negative impact on the environment, that's for sure! It can feel isolated, so many young people tend to leave as soon as they're old enough. Not me. I can't think of anything better than sitting on top of a mountain watching the sun set over the pristine countryside. And this area has the highest density of rare species, too, largely due to the unspoiled habitats.

4.9 (Listening Part 4)

1 As a delivery driver, finding addresses isn't straightforward. Taxi drivers where I'm from have to complete a test proving they know the city like the back of their hand before they get a licence. It must save time in the long run. Other drivers waste time trying to get to places – the GPS signal always drops out when you need it! Timing can be crucial with deliveries – the fear of missing deadlines used to keep me awake at night. After getting lost down one backstreet too many, I decided to do something about it. Requesting the specifics of where I'm going in advance ensures I don't revisit those backstreets! I haven't had a sleepless night since.

2 I've never been one for following sat-navs. I'd rather work things out for myself, even though that's got me into difficulties. Like, I went to work abroad one year but hadn't bothered to look up a map of the city. Wandering around trying to locate my accommodation, I had a flashback – I'd spent my childhood somewhere with similar architecture – that brought a sense of nostalgia – I'd loved it there. Anyway, that didn't help me find my flat, but when I eventually turned up there, I resolved to take note of distinctive buildings and forks in the road so I didn't have to take an hour to do a five-minute journey from the bus stop!

3 I set off to a friend's party not long ago, driving. Being a non-driver, she hadn't thought to explain the complicated one-way system there was in the area, so the directions she gave me were useless. I hate going anywhere new alone and after I'd driven round the same block four times, I knew I'd just have to swallow my pride and approach someone for help – something I never fail to do now cos it avoids the frustration. Anyway, the person I got talking to was actually a friend of the person I was trying to locate, heading the same way. So, I gave her a lift and we've now become good mates.

4 People say I shouldn't go off hill-walking on my own but I know the hills back to front. So, I've no idea what happened one day when I realised I'd somehow wandered off the beaten track. There didn't seem any point worrying about it so I just carried on until I found something I knew – an ancient pine, its branches twisted from the wind. My lengthy walk gave me a bit of space to think and I came up with a solution to a work problem that had been bugging me – very helpful! I know where I went wrong on my walk now, and look out for particular landmarks that point me in the right direction.

5 I got lost inside a building! I was staying with a friend abroad when she was taken ill and I went to see her in hospital. I felt proud of myself getting there in the first place – I'd looked it up online and caught the right bus. Anyway, I grabbed a plan of the hospital from reception and headed to my friend's ward. There was a passage that seemed to cut out a lot of walking, so I followed that. It's a mistake I've never made again because I ended up completely disorientated, in a staff-only area. At least my newly acquired Spanish got a workout as I explained what'd happened to a confused-looking nurse!

4.10 (Reading and Use of English Part 4)

The fourth dimension, or 4-D as it is commonly known, is an area of physics which relates to adding a fourth spatial dimension to the three dimensions of length, breadth and depth. Let me explain.

A dimension is just a direction in which you can go. The first dimension can be considered as a single point – think of a line on a page. Now imagine drawing a circle or a square on that piece of paper. The square has length, width and area, but not depth. You can't pick it up, or turn it round to see the other side. That square is

2-D. The paper itself is also 2-D – you can only go along it's X- or Y-axes – in other words, you can only travel in two directions on it.

I'm sure you'll be very familiar with the concept of 3-D. Real life is in 3-D. Virtually all the objects around us are 3-D – they have length, breadth and depth. They have height and volume. You can move them – or move around them – and view them from different angles – that's the chair you're sitting on, the apple you ate for lunch, your mobile phone. A square made three dimensional becomes a cube. To sum up quickly, then: 1-D is length; 2-D is length and breadth; and 3-D is length, breadth and depth.

So, now we've got that clear, let's think about what 4-D means. To do this, we can talk about what's known as a tesseract – or a 4-D cube. That is, a cube in four-dimensional space. It's a 4-D shape where every surface is a cube. Now, a tesseract doesn't exist in real life – it's a geometrical concept. But this is how it works: Take a 3-D cube and replace each face – which is a square – with a cube. That's a tesseract! Imagine what a cube looks like if you flatten it. It has six squares and if you fold the squares together, they make a cube. With a tesseract, we're folding cubes, rather than squares, into 3-D space. It's difficult to visualise because we can only see things in 3-D. You can't see a tesseract. We can't visualise the fourth dimension in space or make sense of it easily – but the concept exists and has been proven by mathematicians!

4.11 (Speaking Part 4)

Kate does a lot of challenges for different charities but this time she wanted to raise awareness of the smaller charities that do a lot of brilliant work, but which are often overlooked because people lead such busy lives these days. To that end, she challenged herself to complete the busiest day of her life – she set herself the task of doing twenty-four jobs in twenty-four hours! Can you believe it? And these weren't just your everyday type of tasks – she did a whole range of different jobs including cleaning out the shark tank at the Sea Life London Aquarium and warming up the studio audience for a TV show. She appeared onstage in a London musical and worked as a sous-chef in a restaurant. Other things she tackled were window cleaning, train platform announcing, shoe shining, being a receptionist and trying her hand as a barista. She must have been totally exhausted. Well done, Kate – I don't think many of us have got the guts or stamina to take on a challenge like that!

4.12 (Speaking Part 4)

Examiner: Some people say that we focus too much on getting a good study or work–life balance these days. What's your opinion?

A: Well, I personally don't agree, but I can't speak for everyone, obviously.

B: Yes, I see where they're coming from. It does seem to have become a bit of a thing. Everyone seems to be expected to get balance in their lives. You've only got to look at lifestyle websites and it's all about tips for this and that to make every twenty–four hours better! But speaking from experience, I have to say that I really love what I'm studying and I'm happy to spend a lot of time on it. For instance, I once spent about fifteen hours working on a project in my own time because I was so involved! I didn't feel my work–life balance had been compromised in any way!

C: Yes, we're always hearing about that these days. They say we need to strike a good balance between time we spend working or studying and our leisure time. They also say that because we are always available – due to having phones and being online – that we can't switch off.

4.2EB and 4.3EB (Speaking Part 4 – Exam boost)

It's an interesting question and I have to say that there's no one answer really. What makes a true friendship isn't always easy to identify. If you look at people around you, you'll find that some friends are very close but they have completely different characters and interests, and you wonder how on earth they became friends in the first place! I guess being different and doing different things gives people more to talk about, perhaps? However, for me personally, it's good to have things in common. My best friend and I are really similar. We like the same music, the same fashion, food … In fact, we are SO similar that the kids at school used to call us 'the twins'! But then, there's another couple of friends I see around sometimes, who are very, very different. One guy loves technology and is really into games whereas his friend is always out on the football pitch or training for marathons! Takes all sorts, I think.

4.4EB (Speaking Part 4 – Exam boost)

I would say that it really doesn't matter. A lot depends on what brought you together as friends initially. A case in point would be when you start a new school. You're feeling a bit lonely and scared, vulnerable too perhaps. And if someone befriends you and helps you settle in, there's a chance that they could go on to become a close friend. Look back, there was a time when I …

4.13 and 4.14 (Writing Part 2)

The USA certainly know how to celebrate in style! Our New Year's Eve fireworks set the bar pretty high, but fireworks in the USA are really something else. Last month I was staying over in Nashville, Tennessee, with some family friends and the day before I flew back was 4th July – Independence Day. Quite amazing!
The celebrations finished with a gigantic fireworks' display along the river, which I've never seen the like of before. Apparently, it was even better than the New York display, which is saying something. In fact, the whole day was a load of fun. The family I was staying with did what a lot of Americans do – went out of town to have a picnic. The kids all dressed up in red, white and blue clothes and played exhausting games. Then we went into the city where there were flags, balloons everywhere and, being Nashville, of course there was live music every corner we turned. But the fireworks were just incredible – and what was so impressive was that they linked up with a live performance by the Nashville Symphony Orchestra. Wow again! I have to say I was so shattered that I spent the flight home the following day dead to the world.

4.1GF

See Ex 4 on page 105.

4.1VF

1 This decision is going to have consequences that we shall continue to be affected by long into the future.

2 When I'm talking on the phone I often doodle on a notepad and draw a whole range of weird triangles and squares.

3 My sister's teacher told our parents that she always listened really carefully to what was being taught. They were very impressed!

4 The committee made a ridiculous decision which I can see no reason for whatsoever.

5 The radio presenter speaks very deeply and I would know his voice anywhere.

6 Some operations seem very simple, but in fact it takes a long time for the body to recover.

7 Although some people are reluctant to believe it, the evidence for climate change is very strong indeed.

8 Using public transport instead of individual cars is a very good option for commuters in this city.

4.2VF

See Ex 6 on page 121.

Unit 5

5.1 and 5.2 (Opener)

Whether we think we do it or not, we all talk with our hands. Some people do it more than others – those who are in the public eye, such as politicians, gesture a lot when they're making a point – and they might be described as someone who waves their arms around a lot! But everyone uses their hands to some degree when they're talking.

So, why do we do this? Well, science shows that using gestures helps us to think more clearly and speak more expressively. Gestures also help listeners understand what we're talking about, such as drawing the shape of something in the air as you describe it. However, it isn't something we always do consciously: the part of the brain that controls speech is also active when we gesture, suggesting that they're linked.

Gesturing is something we learn to do at an early age, and psychologists say that the younger we are when we start to interpret and use gestures, the better we'll be at expressing ourselves as adults. As a rule of thumb, the more gestures an adult uses, the more communicative, agreeable and lively they're considered to be.

Hand gesturing tells people how we're feeling, too. You might raise your arms when cheering or even when you're furious! The more animated the gestures are, the more passionate or angry or excited we know the speaker is. Again, this may not be something we do knowingly – our body is simply responding to our emotions. So, if you want to know how someone really feels, observe their body language closely because speech and gesture go hand in hand to help us make our point.

Gesture adds to what we say, rather than representing the words in a straightforward way. A hand signal, such as raising your palm or a finger, may indicate to listeners that they should pay careful attention to what the speaker's saying right now, or even show they aren't sure what they're talking about! And when what someone says isn't matched by what they do, we consider them less trustworthy!

Another interesting observation we can make about gestures is …

5.3 (Reading and Use of English Part 5)

Paris is a wonderful city, but the first time I visited I got really confused by the way the districts are numbered! They're called arrondissements and they've all got a number, but somehow it just didn't feel logical! You might be at the Eiffel Tower, which is in the 7th arrondissement, walk south a few hundred metres and find yourself in the 15th! Why? There is actually a logic to it. As we all know, the French are famous for eating 'escargots' (snails to you and me) but the snail is also important when trying to get your head around the arrondissements. You see, the numbers curl out in a spiral – just like a snail shell. So, they start with the First, right in the centre – The Louvre etcetera and then 2nd, 3rd and 4th move east along the right bank of the River Seine. Then the numbers cross the Seine and work back on themselves. Interesting, isn't it? It's apparently all down to Napoleon (not Bonaparte but Napoleon III). In 1860, he redesigned the former districts so that there were twenty, in a spiral format. Each of these arrondissements is divided into quarters which are called 'quartier' – the most famous is probably the 'quartier Latin' or as we know it, the Latin Quarter – that very famous area on the left bank, which is part of the fifth arrondissement – home to students and artists, riverside stalls and a maze of narrow lanes where there are numerous multicultural student-priced restaurants and little shops …

5.4 and 5.5 (Reading and Use of English Part 1)

In the first modern Olympics, which took place in 1896, two hundred and forty-one participants competed in just nine different sports, including athletics, cycling, fencing, gymnastics, shooting, swimming, tennis, wrestling and weightlifting. Now, around thirty or so sports are usually lined up for inclusion in the Games each time, including all nine of the original sports and with the list extending to activities such as handball, karate and, for the first time, skateboarding.

Sports come and go at the Olympics, so how does the International Olympic Committee – or IOC – decide what will appear at each Games? They certainly can't rush into making a decision. Once an activity has been put forward by a sports organisation for consideration, the committee takes on the job of making sure it's recognised internationally as a sport. In order for this to be the case, the activity must already be overseen by an international, non-governmental organisation. If so, the sport moves to International Sports Federation status and must thereby comply with all rules drawn up in the Olympic Charter which specifies how the Games should be run.

Sometimes, a sport gains recognition from the IOC but doesn't get included at the Olympic Games – chess, for example. Why not? Well, an Olympic sport must be practised by men in over seventy-five countries on four continents and by women in at least forty countries on three continents. It should also be modern and have wide appeal. Surely chess falls into this category? Well, yes, it does. But another Olympic rule forbids sports which come under the heading of 'mind sports', so sports like chess can't be included.

What's more, the opportunity for a new sport to be admitted to the Games only comes up when the decision to drop something else is made. All sports are reviewed on occasion to decide whether or not they should be retained. Reasons why a sport may not make it to a particular Olympics include a lack of suitable venues in the host country, how interested the media and the public are in a sport in that country, and whether costs can be managed. It's also important that the sport fits in with the Games' values of excellence, respect and friendliness, and has a good image.

Some sports are dropped from the Olympics because they are deemed old-fashioned, such as rope pulling or tug-of-war, whereas others never make it onto the list because they are practised by so few people – a case in point would be Sumo wrestling, only practised at a professional level in Japan. Having said that, the IOC is keen to cater for young people in the sports it selects, so, although skateboarding and sport climbing may not generate a lot of cash or have been included at the Olympics before, their relevance as youth sports adds value to the Olympic Movement. Events that come off well will likely be included next time round.

5.6 (Listening Part 1)

Presenter: With me today is life coach Valentina Espinosa, who is interested in boosting productivity. Valentina, how does the working day differ around the world?

Valentina: Well, fairly widely, actually. The USA has long had a reputation for putting in the most hours, but newly gathered data suggests otherwise, with the average worker doing 34 hours a week, or six

point eight hours a day. According to one source, it's people in Colombia and Turkey who work the longest days, each coming in at 48 hours a week, or just over nine and a half hours a day. The shortest working week is in the Netherlands, where workers do just twenty-nine hours weekly, a daily average of five point eight hours.

Presenter: Is there a difference between the kinds of jobs people do?

Valentina: Yes. Self-employed people and those running their own businesses work longest – often up to 50 hours a week or more. Eighty-four percent of the latter report having a mere one point five hours of highly productive time each day. And even if you officially work a 40-hour week, it doesn't mean you're productive for 40 hours a week.

Presenter: So, how can any of us be more productive?

Valentina: We all have natural peaks and troughs of energy throughout the day, so it stands to reason that there'll be times when we might well simply be sitting and staring into space. Our peak productivity times are precisely when we should be solving problems, making plans and being creative. Then, during our troughs, we can get the more mundane tasks done, the stuff we don't need to think too hard about.

During peak productivity periods – you'll know when you're naturally more alert – try to ensure there are as few interruptions as possible and avoid distractions. Working in blocks of ninety to a hundred and twenty minutes seems to work best for most people and fits in with natural rhythms.

Presenter: But you can't always avoid being interrupted. How do you deal with that?

Valentina: Well, of course, you don't have much control over what everyone else does: people will still call you, appear at your desk to ask a question, or call you into a meeting. There isn't much you can do about that other than avoiding wasting time looking at cats on the internet when you know you could be making progress with that report instead! The thing to bear in mind is that you're simply striving to be more productive during your higher energy periods, not aiming to increase your output in general.

Presenter: OK, thanks!

5.1EB (Listening Part 1 – Exam boost)

1 While we're on the subject of day-dreaming, you have to understand that when someone appears to be looking out of the window at work, they aren't necessarily watching shoppers in the street below or thinking about what they're going to cook for dinner, but are actually thinking deeply about what they're working on.

2 Although what you've just said goes against my initial instincts, I appreciate that the evidence you've provided in support of your argument does hold up.

3 Oh, I really am exasperated with this project. No matter which approach I take, it just isn't coming together in the way I'd hoped.

4 The greater your input, the greater your output. That's what they say, and there's little reason to dispute that. Basically, as long as you keep putting in the effort, no matter whether that's while you're completing a university assignment, practising a sport or preparing a presentation, the results will show that.

5 There's a widespread belief that in order to be good at something, you just have to work hard. If this were the case – and there really was no such thing as natural aptitude – then wouldn't we all be top musicians or business leaders? I think not.

5.2EB (Listening Part 1 – Exam boost)

1 So, what is productivity? Well, it's a measure of the efficiency of a person or machine, factory or system and so on. So, it converts inputs into outputs. It's calculated by dividing the average output per, say, quarter of the year, by the total costs incurred or resources used in that period.

2 Right, so what the chart appears to suggest is that there is little point in expecting workers to do overtime. If you look at the figures, we can see that productivity slows the later workers continue into the evening.

3 I feel I've already addressed the argument that the typical eight-hour work day – that stereotypical 'nine-to-five' pattern – does not, in fact, ensure that workers get more done. Evidence shows the average worker only spends between two and four hours every day actually working. Research indicates that in companies where this has been promoted as a good idea, and ultimately implemented, productivity has increased, provided that rates of pay aren't similarly reduced. So, let me reiterate the idea of introducing shorter working days.

5.7 (Listening Part 1)

Extract 1

A: I've just been reading this article about the Ford Motor Company. Apparently, they were one of the first American companies to introduce a five-day, 40-hour working week, down from six nine-hour days, in 1926. And Henry Ford – who ran the company – nearly doubled his workers' wages, which was unheard of. The results were apparently very positive, though – reports suggested that productivity went through the roof. Ford believed that workers needed more than one day off a week – and this became the industry standard. Impressive, if that's the truth of it. People do even fewer hours now on average – in the UK at least. And there's even talk of going down to a four-day week. Before we know it, we'll be off more than we're at work!

B: I can't see that benefiting productivity. To my mind, reducing hours would only work if people continued to receive the same salary. Whether that's sustainable or not, though … You've got to strike a balance between what you earn and how much free time you get. You can't live on fresh air. More time off sounds great but if you can't afford to do anything with it … You really couldn't create the same output with so much less input.

Extract 2

A: How are you getting on with checking the new version of 'Day Again' for bugs?

B: Not too bad. I didn't work on the first version, so I can't compare ease of use or anything.

A: Well, if you had been involved, you'd realise how impressive this new version is in comparison. It was along the same lines as this in plot and progression and so on.

B: I haven't seen it actually.

A: Well anyway, the earlier version got stuck at one stage of development for ages. We just couldn't iron out the glitches. And it already looks outdated even though it was only released a couple of years ago. The sequel, on the other hand, is far superior in graphics and everything.

B: That's what I heard – hence my request to join this team. I'd got a bit bored where I was and was desperate for a new challenge, something to get my teeth into. I like what I've seen of the game so far. It raises a smile and the characters seem well rounded. I'm not convinced it's as brilliant as I'd been led to believe, but time will tell.

A: It will!

Extract 3

A: It's Monday again tomorrow! Why do we hate them so much? I mean, we both either work or study over the weekends, anyway, so it's hardly like we've got that Sunday gloom!

B: Well, we don't work flat out like we do during the week. It's still an anti-climax.

A: Like the day after your birthday. How can anything live up to the fun you've just had? I suppose if we weren't to have Mondays, we wouldn't enjoy Saturday and Sunday so much!

B: Well, that's one way to look at it. But I happen to know that there's some science behind feeling bad before the first day of the working week. Coincidentally, we were talking about it in a psychology seminar last week.

A: Oh?

B: Yeah. It's called an 'emotional shift'. One minute you're sky high with happiness, doing something you love – even if that's just lounging on the sofa – and the next you're back to earth with a bump – back to doing something you don't like as much. Try as you might, carrying that warm glow of the weekend into Monday morning just doesn't happen. And, if we changed the weekend around, had different days off, we'd still feel the same.

5.8 and 5.9 (Reading and Use of English Part 2)

It's the trend of the 2020s, but if you haven't yet embraced a plant-based diet, perhaps you'll have come round to the idea by the end of this brief talk.

Vegans omit all meat, fish, dairy, eggs and honey from their diet, and refuse to wear leather, wool or silk. But the reasons for going vegan don't just come back to concerns about animal welfare. Put simply, veganism is good for you.

If we were all to go vegan, the environment would be better off than if we continued to munch through meat. Plant-based foods are sustainable and have a positive impact on the environment, because rearing animals uses many more resources in terms of land, water and energy. In other words, if everyone went vegan, greenhouse gas emissions related to food production would decrease by 70 percent. Vegetables are cheaper to produce, too.

It goes without saying that fruit and vegetables are full of essential vitamins, minerals and fibre. But if you're one of the people who believes vegans don't get enough calcium or protein, you might want to think again. Seeds, beans, lentils and nuts are packed with protein, and leafy greens, tofu and some fruit contain all the calcium you need.

If that hasn't convinced you, what about this – vegans live longer! Several scientific studies have proven that should you stick to a vegan diet for long enough, your risk of getting diabetes, heart disease or other serious conditions will drop. If you had only been fed vegan food from birth, you might even be healthier now.

If we all switched to a plant-based diet, we would smell better, too. Yes, you heard me correctly! Another study has shown that vegans have sweeter-smelling sweat. That seems like a pretty good reason to ditch the beef to me.

And finally, as for the argument that vegan food is tasteless, well if you should happen to see a vegan dish on the menu one day, give it a go – the myth will soon be dispelled. There's no reason why vegan meals can't be just as appetising as those containing meat or cheese. You might have to learn to cook in a different way but there're plenty of delicious recipes out there for you to have a go at. And lots of vegan foods are superfoods, too.

So, if you haven't already, why not go vegan? Not only will you help save the planet but you'll save yourself, too!

5.10 (Speaking Part 2)

OK, I'm a coin nerd – and I'm proud of it! I just love coins and what they show. I think it's amazing that we carry round little pieces of history with us every day without thinking about it. Some coins I collect are really special. One is called a crown and it's really big and chunky. A new one is made every year to celebrate different events in our history. That's like – say, a famous author or a significant royal birthday. Since 1990 they've been called Five Pound coins. These aren't actually in circulation – that is, you can't spend them like all the others. Think about it – they're way too big and heavy. No, you buy them specially from the Royal Mint – that's who produces all the UK coins. They used to be considered an investment and that later they'd go up in value and you could cash them in. But apparently not. Banks now say they won't accept them. So, you can't even get face value – unless you sell to a special collector. But another great coin in the UK is the 50p piece. This has been in circulation since 1969 and was the first coin in the world to have an equilateral curve heptagon! To you and me that's seven-sided, but curved. This celebrates events, too, but it's not just for show – it's a working coin. I really love this coin because it celebrates so many weird and wonderful things – like the Olympics, Women getting the vote, etcetera. Some can be worth a lot of money – like one version with a character from a children's story on it, Peter Rabbit, is rare and worth one and a half thousand pounds. See – there can be money in being a coin nerd!

5.11 (Speaking Part 2)

So, I'd like to talk about these two pictures – and the main similarity between the two of them is that the people are handling coins. The first picture is of someone outside. I would imagine he's been busking, that is, playing his guitar in the street, with his guitar case in front of him for passers-by to put money in to show their appreciation. Generally speaking, people use coins in this situation because it's easy – it's loose change that they carry in their pockets. In all probability the guy has an official space and it may well be that his time is up and he's counting the money he's been given. So, the money for him is like a reward. The other picture, on the other hand, shows a coin in a boy's palm and there's no way that that is payment of any kind! It looks as if they're about to start a game – football, because I can see one child holding a multi-coloured ball in his hands. I would assume that they're about to toss the coin to see which team starts the game. This often happens in sports. As for how they're feeling – I guess the children are feeling pretty excited and probably hoping their side wins the toss, whereas the man might well be feeling tired. How happy he is, would depend on how many coins he's been given.

5.12 (Writing Part 2)

This trend – I'm talking about rating products and leaving reviews – has the possibility of revolutionising the way we choose what products and services we buy. In fact, it's changing habits already. With some industries in particular – like electronic goods, travel and hospitality – restaurants and so on, more and more people are sharing their experiences online and this is having a considerable knock-on effect on other consumers and the companies involved themselves. It seems like everyone is looking – or aiming – for that five-star rating! According to a recent survey, more than 70 percent of us are happy to leave feedback, both good and bad, and about 50 percent will check out reviews before they buy something. That's extremely interesting from a marketing point of view. It shows that consumers are being influenced more by ratings and reviews than by brand loyalty or advertising! This trend is good all round. Companies have to step up and deal with complaints or problems. Consumer power – this trend can only grow and become even more significant.

5.1GF

See Ex 4 on page 107.

5.1VF

1 I really wanted to go backpacking in Spain on holiday but my mate wanted to go to France. I said why don't we do a few days in each, and he agreed.

2 The plan of this building just hasn't been well thought out. Maybe we need to contact an architect and see if they can help us improve the spaces.

3 You're always trying to pass on stuff you don't need anymore to me – give it to someone else for a change!

4 Look at the sunlight dancing on the water like that. It reflects all the different colours around it in pretty little spots.

5.2VF

See Ex 8 on page 123.

Unit 6

6.1 (Opener)

It's a familiar little piece of wood or maybe plastic, isn't it? Rectangular, black, with two sets of dots on it. Most of us know the name – dominoes – but I wonder just how many of us have actually played a game with them. Today there are plenty of board games to play with the family when you're at a loose end and, of course, there are the video games where we try, often in vain, to outdo ourselves or opponents, racing through imagined worlds at breakneck speed.

I'm by no means anti-computer games, and I'll often end up playing them by default. However, I'm really in my element when I'm researching traditional games. They fascinate me. My current interest is in finding out all I can about the humble domino!

At first glance dominoes appears to be a simple game where you just lay the pieces to match the numbered dots, but there are people who take the game very seriously. Also, you can play dominoes with different size dominoes and different sets. The most common set of dominoes is called a double-six set, because double six is the highest number on a tile but at a stretch it's just possible to play with a set of double fifteens, but beyond that the tiles get unmanageable!

By all accounts, the use of dominoes goes back nearly a thousand years, originating – as did many old board games – in China. It then moved to Europe where it got its name from the black and white Venetian carnival masks. These were called 'domini' which, in turn, came from the 'Dominican' monks who wore black and white hoods. Interesting, isn't it? In no time, the domino trend spread to France and then into Britain. Today, all over the world people lay out the little black tiles to engage in friendly rivalry or in organised competitions.

And the little black tiles have also given us a linguistic term – 'domino effect'. It's the idea that one small event can lead to other events which eventually lead to a catastrophe. That comes from placing upright dominoes in a line and pushing the first one over, so that it topples the next, which topples the next and so on … People can create amazing visual effects by arranging different lines and patterns of dominoes to knock over. You can watch videos of these achievements in action online – sometimes involving thousands and thousands of dominoes. The people behind these complex creations, domino artists, can take days to set up the dominoes, and it's by no means certain that things will go according to plan. Recently, in a world record attempt in Germany, long hours of preparation were ruined by a fly. Apparently, it flew into the dominoes, starting the toppling sequence before the judges were there to see it! Imagine the frustration!

6.2 (Reading and Use of English Part 6)

A: Yeah, well, there's that thing, you know, when you can feel that someone's watching you – but you can't see anyone? I get that a lot. Sometimes I turn round and yeah, there's someone doing just that.

B: Animals definitely have an extra sense! Our dog always knows when my dad's coming home from work – and he works irregular hours. She goes and sits by the front door! And animals usually know if there's going to be an extreme weather event and take shelter or move to higher ground.

C: Sixth sense? OK – yes, I think it's like, when you've just got a feeling – you don't know where it comes from, that something's going to happen – or not happen, and it turns out to be right? And you think – how did I know that?

D: In my opinion, what many people cite as examples of someone having a sixth sense, after investigation, usually turns out to be either coincidental or a heightened awareness related to one of the existing five senses.

6.3 (Reading and Use of English Part 3)

1 There's one thing I'd like to address first – blind people don't have a better sense of touch or better hearing than sighted people. We simply use these senses more to make up for lack of sight. We have to work hard at braille, in the same way people who can see have to work at their reading, writing and spelling, too, and use the same memorisation techniques. I don't use braille to read for pleasure – I might as well listen to e-books and save myself the hassle! But braille has a huge significance for me when it comes to certain situations that require 'pen and paper', or for me, braille. Unfortunately, braille literacy is on the decline, as younger blind people have a high dependence on note-takers and mobiles to get by. That's a real shame as the skill and its usefulness is being lost.

2 When people who know little about being blind see me holding one of my technological gadgets, they invariably want to know how it works. I don't mind their curiosity – it's the perfect opportunity to educate people about what life's like for blind or visually impaired people, and that promotes understanding and tolerance. The technology's cool – we can use refreshable braille displays, where screen-reader software gathers information from a computer screen and converts it to braille which is then sent to the display. Then, a series of pins pops up on the display to represent braille dots, and blind people can read what's on a computer screen. New technology's currently in development, where a kind of braille wheel will rotate at a selected speed so that people like me can read continuously with a stationary finger – can't wait!

6.4 (Listening Part 2)

You will almost certainly have heard of Route 66 in the USA. Also known as the Mother Road, it was one of the first highways in the States. It was established on November 11th, 1926, although road signs for the route weren't erected until the following year, in 1927. Stretching an incredible 3,940 kilometres from Chicago in the Midwest to Santa Monica on the west coast of California, the road served as the main – and what's more, crucial – route for migrants to the west during the 1930s. This was needed when long-lasting drought damaged agriculture and ecology and people needed to go elsewhere for work. Dust storms and strong winds swept away much of the topsoil, eroding it beyond recovery.

The highway became increasingly popular and, understandably, businesses sprang up along it to cater for travellers: motels, diners and gas stations abounded and profited from visitors who stopped along the way. It was the first road in the USA

to be completely paved, and numerous roadside attractions were built, such as museums, animal farms and drive-in movie theatres.

When the new Interstate Highway System came into effect in 1956, the popularity of the road began to decline. Travellers abandoned Route 66 in favour of the newer faster roads which bypassed the old one. Although many sections of the new roads followed alongside the old route, it was eventually replaced in its entirety, and although those who operated business along the old route fought for its survival, it ultimately fell into disrepair, and sadly, multiple businesses died with it.

The road was officially decommissioned from the U.S. Highways System in 1985. Road signs were removed and it no longer appeared on official U.S. road maps, though some of the new sections of road which closely follow the old route were named State Route 66 in its honour. Those who wanted to travel the old Route 66 for nostalgic reasons found it frustratingly difficult to navigate, with no sat-nav coordinates, and a road that in places seemed to suddenly disappear.

However, Route 66 had become too popular to be forgotten altogether, especially as it had appeared in songs, TV programmes and novels, and it is currently undergoing a revival. Today, remaining sections of the old road have been renamed Historic Route 66, and these sections are once again included on maps, along with a new bicycle route known as U.S. Bicycle Route 66.

6.1EB and 6.2EB (Listening Part 2 – Exam boost)

Last summer, I travelled the Trans-Siberian railway, the longest railway in the world at around 8,000 kilometres long.

You might think there isn't much planning to do for a journey like this. After all, you're just sitting on a seat for the duration, right? Wrong! There are tons of cities to stop at and sights to take in, all to be researched in advance so you don't miss out on anything interesting. In addition to this, we needed to make sure we'd organised all the relevant documents in advance of travelling. Oh, and there can be quite a change in weather between the Moscow starting point and the last station in Vladivostok, so it's a good idea to be properly kitted out, with jackets, gloves and even sun cream!

You don't have to learn any Russian, but it does help to acquire a few useful phrases. What's more crucial, is learning to read the alphabet. Russian is written in the Cyrillic alphabet, of course, which you may or may not be familiar with – I wasn't! Luckily, it's a phonetic language, so once I'd worked out what each letter sounded like, I could start to recognise things on menus. I found place names a but trickier, though – some of them are really long!

As you travel along through the vast spaces of the Russian landscape, passengers come and go. If you can manage to find a language you both speak, you can have fascinating conversations with those sharing a compartment with you. Lots of people shared their food and drink with me and chatting with them provided a great opportunity to find out more about where I should get off and look around. Local knowledge is worth so much more than what the guidebooks tell you.

One of the most interesting places I stopped at was the city of Tomsk, where I coincided with the wood-carving festival. It was amazing. The material seems to play an important part in the city's architecture and there are some very old and beautiful buildings to admire. I then made a mental note to look up other festivals or special days that I could make stops for later in the journey, as I found it provided me with a real insight into local culture.

There were, of course, long stretches of time where the landscape remained unchanged and there was nothing to do but sit back and relax. During moments of boredom it helps to have a few good books tucked away in your luggage, or, as became my own preferred way of passing the time, chess. It was a great way to engage with people even when there was a language barrier.

6.5 (Listening Part 2)

During our last summer break, I drove the length of the old Route 66 with a friend. We'd prepared in advance, painstakingly researching directions, knowing that at times it would be difficult to find our way, especially if we were to make any diversions to some of the fascinating-sounding sights away from the road itself.

As we rolled out of Chicago, we'd barely got going when I spotted an iconic Route 66 diner and we had to stop. Expecting juicy steaks and ribs on the menu – and there was no shortage of those – it came as a pleasant surprise to note some dishes I'd never heard of, too. I opted for fried pastries I couldn't pronounce the name of – they were superb – and a drink called root beer – a soft drink, and not quite as pleasant!

Back on the road the first day passed unremarkably. As night fell, we headed for a flashing neon light – an old 1950s motel. As we approached, I could hardly contain my excitement. I was thrilled by its Art Deco appearance and its inclusion on the National Register of Historic Places, which meant we were in for a truly authentic experience. It really was.

Waking early, we got back onto the road again, this time in search of a museum we wanted to visit. The Hall of Fame Museum not only included interesting exhibits from the town in which it was located, but memorabilia from the early days of Route 66. Those were what really captured my attention and I could've spent all day there.

It was inevitable that we'd get lost at some point, but if we hadn't gone off track, we'd never have come across what we've since nicknamed the 'deserted village' – an isolated trading post that had once been a bustling tourist trap. It had ghostly crumbling ruins, rotting wooden walkways and a graffitied gas station. We got some brilliant photos but were happy to get out of there, too!

For those of you with an interest in the construction of the route, you might be fascinated, as I was, by one town's solution to not being able to afford to pave the section of the route that ran through it. Known as the 'sidewalk highway', or perhaps more frequently the 'Ribbon Road', engineers built one perfect lane instead of two, bordering it with gravel sections that allowed cars to pass. Cool!

We travelled through every kind of landscape on our trip, from farmland to forests, and made stops at some of the funnier tourist landmarks – a giant blue whale, the world's largest rocking chair … And there was the natural scenery, too, of course. What made the greatest impression on me was the Painted Desert, which really did look as though an artist had taken his brush to it.

When we finally arrived in Santa Monica, we were both thrilled and relieved – the former because we'd survived a month on the road and the latter because the driving was, at times, monotonous. But we had countless tales to tell about our adventures, and it really was an ambition fulfilled.

6.6 (Reading and Use of English Part 4)

If I said the word 'nature' to you, how many of you would think of straight-sided shapes such as rectangles or hexagons? Probably not many. Yet hexagons are found everywhere in the natural world.

There's a reason why six sides are useful. Hexagons are strong and efficient, symmetrical and simple. They also tessellate, which means they can fit together without any gaps, much like tiling on a floor.

So, where on earth are all these hexagons? Well, think about honeycomb, which provides storage for honey, for example. Honeycomb hexagons actually start out as little round tubes of wax, which soften into interlocking hexagonal shapes as the bees go about their business.

Plants and fruits, including the Swiss cheese plant and the breadfruit, each have distinctive hexagonal markings. And in the animal kingdom, hexagons are all over the place. Now extinct, the Cyathophyllum hexagonum was made up of hexagons, as are the eyes of the still very much thriving dragonfly, made up of 30,000 miniscule hexagon shapes. Because of this, these beautiful insects experience colour in a far superior way to any other known creature.

Even humans are made of hexagons! Without carbon atoms, which we're all built of, we'd probably just be a shapeless mass on the floor! You've guessed it – those atoms join to form hexagonal rings, and these structures literally hold us together.

That's living things covered. But it's in inorganic structures that we might expect to find hexagons more frequently. Crystals are often hexagonal in nature; snowflakes, none of which are identical, only ever come in a six-sided shape! And water molecules form hexagons when they're arranged just right, joining up to create frozen sheets of ice.

Perhaps the largest hexagon of all is a cloud pattern which sits at Saturn's north pole. Twice as big as the Earth in diameter, this hexagon shape is an unchanging feature of that planet, but how it is sustained is as yet unknown.

Has anyone got any questions?

6.7 (Speaking Part 3)

Oscar: I have got to be the most disorganised person I know. I sometimes look at my desk in despair – It's as if someone's dumped a waste-paper bin on it. And it really frustrates me. I'm looking for a vital piece of information that I know I've put somewhere, but can I find it? Then I end up wasting valuable time because I know it's there and I'm not going to give up because that would be defeatist! And it's not just my workspace – if I invite people round for dinner, I try to organise things but usually get carried away by something else, forget the time and with only five minutes before they're supposed to be arriving, I'm at sixes and sevens rushing round getting the table set, peeling vegetables, stressing over the still uncooked chicken, not knowing whether I'm coming or going … one day I'll learn, take my time and be organised but currently I would say that I'm your classic case of someone suffering from chronic disorganisation.

Psychologist: Hi Oscar! Be reassured, you are not alone! And you may be surprised to learn that your chronic disorganisation could well be a sign that you are, in fact, highly intelligent and creative! Research shows that being disorganised can indicate high energy and the need to always be learning, experiencing new things, multitasking and coming up with wonderfully creative new ideas that excite you. People like you just don't have time for the less important stuff, like planning and tidying. You're too busy!

Oscar: Thanks! Now that's something to tell my family and friends who criticise my mess all the time. Brilliant!

6.8 and 6.9 (Speaking Part 3)

Examiner: Now you have a minute to decide which of these problems you think would be hardest to deal with.

Candidate A: So, now we need to think about which of these problems would be hardest to deal with. OK, as you mentioned previously if they've got their own room, then leaving their bed in a mess, and clothes all over the floor isn't going to be a problem for others – they'll be in charge of cleaning up after themselves.

Candidate B: On second thoughts – that's fine unless they keep stale food in there and it starts to smell!

Candidate A: Ah. Good point! Umm, and I appreciate that we said buying food and cooking might be a problem – you know, them not doing their fair share, but on reflection, I think a timetable – or like, taking turns, could help that.

Candidate B: True. OK, if I remember rightly, we also agreed one thing that would irritate us might be leaving the bathroom messy and dirty. I wouldn't want to have to pick up clothes in the bathroom! And also, we mentioned security, if this person lost their keys or forgot to lock up and things like that.

Candidate A: Yes, well, taking everything into consideration, I'd go for being messy around the house as the hardest to deal with. That's awful if you're sharing. You'd worry about inviting friends round for a start.

Candidate B: Personally, I'd be more concerned about keys and security! The place could end up getting burgled!

Candidate A: You're right. Good point. I'd go along with that.

6.10 (Writing Part 1)

In my day, learning history at school was all about dates and wars and kings, queens and prime ministers! As a subject it was dry, and I certainly didn't see any reason why we should be learning about stuff that happened before I was born. And as for dates – well, I had a complete mental block when it came to remembering any! But today, when I visit primary schools to give readings from my history books, I can see how dramatically this has all changed. The teachers use their creativity to make the subject come alive and the kids dress up, do projects, watch films, make food from the period … some schools are even introducing VR sessions. For me, history is about a lot more than dates. For one thing, it's full of great stories – and kids love a good story. My job is to be a story-teller and what better place to find good stories than in the past? So, my new series is specifically for primary age children. I write about the gory side of history – the battles, the conspiracies – and admittedly, I tend to exaggerate to bring in a lot of comedy. If reading or listening to any of my stories gets even a few kids interested enough to study history seriously when they're older, then I've succeeded!

6.1GF

See Ex 4 on page 109.

6.1VF

1 Need any help with anything? I've got nothing to do.

2 I'm never happier than when I'm dancing.

3 We didn't do the project alone. We worked with another class on it.

4 I've been trying to contact him for several days, but I haven't managed to.

5 When I saw the questions in the exam, I thought they were impossible, but when I read them carefully, they weren't so bad.

6 I've got so many different things to do this afternoon I don't know where to start!

6.2VF

See Ex 7 on page 125.

6.3VF

1 The meeting was in an uproar when the government announcement to cut funding was made. Everyone started shouting at the same time.

2 I was going to book the taxi for 8.30 but on second thoughts that might be too late, so I'll book for 8.00.

3 After the accident in the town centre, the traffic was at a standstill for half an hour.

4 I wasn't intending to buy a new laptop, but the price was so good I bought it on impulse.

5 The boots in my size that I want to get are out of stock, so I'll have to check out some other stores.

6 My brother doesn't usually remember family birthdays but to his credit he did remember mine this year and got me a great present.

7 It's important to be on good terms with your neighbours as you can often help each other out when there are problems.

8 In line with government policy, there is going to be an increase in the number of CCTV cameras in city centres.

Unit 7

7.1 and 7.2 (Opener)

Today we're going to take a look at nitrogen, a particularly fascinating chemical element which can be used in various states, including gas and liquid. It's interesting because it's in every living thing on the planet. That's me, you, your pet cat and even the plant in that pot over there!

Although nitrogen forms part of us and it makes up most of the air we breathe, it can have a devastating effect on the body in certain circumstances. You can't breathe pure nitrogen, for example, because it's poisonous and causes asphyxiation. Therefore, when nitrogen's being used in an enclosed space, the room must be ventilated.

Has anyone heard of decompression sickness? It's what scuba divers can get if they rise to the surface too quickly. The rapidly changing pressure of water releases nitrogen bubbles into the body and decompression sickness kicks in. This has a serious effect on organs and blood and can be life-threatening. Fortunately, this is now no longer a common occurrence because of increased knowledge and better equipment.

There are many uses and applications of nitrogen, including its use in pharmacological drugs. Nitrogen becomes a liquid at minus a hundred and ninety-five point five degrees and below. A lot of effort goes into conserving blood and other biological specimens and in its liquid state, nitrogen is perfectly suited to do this. It's used in anaesthesia and cryogenics – medical freezing – too.

Nitrogen's ability to cool means it's also used to prevent large computer systems and things like X-ray machines from overheating. Electrical components use it, and it's used in military aircraft systems and high-voltage equipment to combat fire hazards. Although nitrogen itself can be a pollutant, it is also used to control worse pollutants, by disposing of toxic liquids and vapours from industrial tools.

In the food industry, food needs to be kept fresh long enough for it to be in near-perfect condition when it reaches us. Nitrogen's used in packaging to ensure a stable atmosphere within it. This keeps the food – er, fruit, say – from oxidising, which would lead to it going off. Mixed with carbon dioxide, it ensures food stays fresh. You'll also see chefs using liquid nitrogen, too, to create spectacular effects when serving fancy dishes!

Motorsports engineers also draw on nitrogen's properties. It's used to inflate tyres in motorsports. This is because it has no moisture in it, so it does not cause fluctuations in pressure like air does, so the tyre pressure remains constant whatever the climatic conditions, thus avoiding complications while driving.

7.3 (Reading and Use of English Part 7)

In Christopher Booker's extremely long publication 'Seven Basic Plots', he asserts that all stories adhere to one of seven types. These narrative structures apply to stories told and written over the centuries from Greek myths to modern-day films. In the course of 738 pages he takes us through plots that he gives interesting labels: 'Overcoming the monster' apparently applies to beating physical entities such as the shark in 'Jaws', as well as triumphing in other battles such as fighting illness. Another that he calls 'Rags to riches' brings together the classic 'Jane Eyre' and the more modern 'Brewster's Millions' type of tale. Following these we have 'The Quest' where we follow people like Ulysses or the Hobbits in pursuit of a goal, and then 'Voyage and Return' where our protagonists go off to a strange land, returning successfully, having profited from the experience – think 'Alice in Wonderland'. Another type, 'Rebirth' outlines inner journeys from ignorance to wisdom – such as 'The Frog Prince'. The final two types of plot are 'Comedy', not necessarily referring to humour but to confusions which are smoothed out resulting in clarification and happiness – most romance stories fall into this category, and finally 'Tragedy', where, unlike all the others, a fatal flaw prevents the hero from reaching his desire and precipitates his fall. The book is definitely interesting but for me, there is a great deal of overlap and his categorisation doesn't seem to be applicable to some very modern types of novel. But worth a read, certainly.

7.4 (Reading and Use of English Part 1)

At the age of 73, Deke Duncan was finally offered a DJ slot on his local BBC radio station. For the previous 44 years, Deke had been broadcasting his own radio station via a speaker to an audience of one – his wife!

Deke set up his station – Radio 77 – from his garden shed back in 1974, naming it after an American station he'd bought some jingles from to use in his shows. His interest in radio stemmed from listening to Radio Caroline, a pirate radio station broadcast from boats off the coast of the UK during the 1960s. However, he was fully aware that, much as he'd have liked to, he would never make it as a professional DJ.

Without a broadcasting licence, Deke could only be on air in his own living room where his wife was listening in. From his shed, Deke played his and his wife's favourite pop songs, recording non-stop, dawn-to-midnight weekend shows with friends Richard and Clive and then playing them back.

A lack of budget meant he couldn't keep everything they'd recorded, and they would reuse the tapes by recording new shows over old ones. While he was 'on air', Deke frequently referred to the fact that he was broadcasting to and from his own home. He sometimes suggested that he'd lost his whole audience when his wife had popped out.

This wasn't the first time Deke had appeared in the news. Coverage of his story was broadcast in 1974 when he'd not long been in operation. When the footage was recently rediscovered in the BBC archive, they tweeted about Radio 77 online, prompting BBC Three Counties – Deke's regional radio station – to track him down and offer him a one-off slot, where he could play whatever he wanted for a whole hour. Deke was overwhelmed at the chance to realise his 'ultimate ambition'.

7.5 (Listening Part 3)

A: Have you finished looking into the causes of so-called overpopulation for our research project?

B: Yes, and you've researched the effects, right?

A: Yes. Great, let's compare notes then. Why don't you go first and tell me about the causes, and then I'll summarise what I've found out about the effects.

B: Sounds good. So, firstly, I tried to redefine 'overpopulation'. There are differing views about whether it's really a thing, as far as I can tell. Like, some people say there are too many people in the world which creates problems, and others don't believe so.

A: But the basic concept for those who believe in overpopulation is that there are more humans on the planet than it can sustain, right?

B: Right. One source said the world can sustain somewhere between 4 and 16 billion – so we've either exceeded the number of people the planet can sustain, or we're still some way off.

A: Interesting. So, what causes did you come across in your reading?

B: Well, the first is a decline in mortality rates. People are living longer than ever, partly due to better medical facilities.

A: So, as life expectancy increases, so does the population?

B: That's the idea. When the rate of deaths and births is equal, the population remains stable. But that's not what's happening at the moment. Advancements in science and technology have led to easier food production as well as medical progress.

A: Ah, OK, so because there's more food and less illness, people are living longer. That makes sense.

B: Now, there was something else. In the past, infant mortality rates were higher so people had a lot of children to ensure that enough would survive to support the family – more hands for agricultural work, say, and better provision for the family. And another source I read made the assumption that some people have loads of children because they're less aware, under-educated even, of the impact of overpopulation. Now, I'm just quoting what I've read, remember!

A: Hmmm, that's totally patronising! I wish people didn't say that sort of stuff. And in any case, many people are having fewer children than they did in the past, and also doing it later in life, so it must balance out. Sounds like a weak argument to me. Forgive me for being sceptical.

B: Well, like I said, we don't have to agree with everything we read. These are opinions.

A: Was there anything else? Other causes?

B: That's it for now. So how about the effects?

7.6 (Listening Part 3)

So, I read about the effects of overpopulation and came across a few arguments. The first was depletion of resources – there's only so much water and food to go round. And we've also been damaging the environment through pollution, by overusing natural resources like coal, oil and gas, as well as through industry and of course, the massive number of vehicles on roads. Along with deforestation to make way for more agricultural land, this has led to damaged air quality and increased CO2 emissions, which in turn has led to global warming and climate change – and we all know the effects of melting ice caps and rising sea levels.

Other effects of overpopulation include a potential rise in conflict, such as 'war over water'. Lack of clean drinking water leads to uncontrolled disease and starvation. And overpopulated areas can have higher unemployment, exacerbating poverty and other social issues which may lead to an increase in crime. The cost of living also increases – as more people compete for limited resources, the price of commodities, including food and shelter, goes up, meaning people have to pay more in order to feed themselves and keep a roof over their heads.

But before you despair too much, I did come across a positive – further advances in technology will occur in order to find solutions to overcrowding and overpopulation.

7.1EB (Listening Part 3 – Exam boost)

1 Just leave me alone, will you? I'm not in the mood to chat. I'd rather be on my own.

2 What a terrible way to treat a customer! I couldn't believe that the sales assistant was so rude to me!

3 Oh, wow! I can't believe you've all travelled so far just to celebrate my birthday with me. I'm lost for words!

4 What?! There's another flood warning? We'd better move the furniture upstairs – quick!

5 I've never had particularly good self-esteem. I cringe when I have to address a group of people, even if they're my friends.

7.7 (Listening Part 3)

Presenter: Good morning and welcome. Joining me in the studio today are Hugo Silva and Bethany Wright, who are here to discuss the concept of overpopulation. Hugo – is overpopulation actually a problem?

Hugo: Well, I know for a start that Bethany, among others, is going to disagree with me here but no, it isn't. Now, I can almost hear listeners shouting at the radio – 'we're wasting our resources!' they'll be crying. I'm not deterred by that. I know my ideas are unpopular in some circles, but that doesn't mean they aren't credible. People do challenge me when I attempt to put my arguments forward on this matter, but I'm prepared for the onslaught! Whether they choose to really hear what I'm saying is up to them.

Presenter: So, tell us. Why isn't overpopulation a problem?

Hugo: People say we're rapidly depleting the world's natural resources and the Earth can't carry on carrying us all. This simply isn't true. The ecology of human systems doesn't work in that way. Humanity is not sustained naturally, and never has been. People have made use of technologies and engineering – from as far back as the earliest stone tools – to manage ecosystems and sustain populations. It's taken thousands of generations to become as sophisticated as we are today, but that's what's happened all along.

Presenter: Bethany. You believe overpopulation *is* something to worry about.

Bethany: Yes. The first problem is the displacement and extinction of species, caused by humans. There are too many of us for people and animals to share the planet harmoniously. We've ruined ecosystems and destroyed habitats by building all over them and using the land for industry and agriculture.

Presenter: Hugo – what about the matter of extinction?

Hugo: All species die out eventually. In the past, when an animal that humans hunted became rare, they learnt to extract more nutrients from what they hunted, or they would move onto other species. They started to burn woodland, too, and create spaces for animals to graze, and be used for food. So, they learnt to sustain not only themselves but other species, too. We're still doing that.

Bethany: Well, I'll concede that species do naturally die out – we're accelerating that too quickly, though.

Presenter: Bethany, tell us about overcrowding.

Bethany: People living in overcrowded places are becoming more and more vulnerable and that's a terrible state of affairs. They lack fresh water, safe housing, they live in polluted environments. In today's megacities, some kids have never even seen a garden, let alone countryside, such is the lack of green spaces. And would climate change have occurred if we'd kept our population down to, say, half what it is today? Tens of millions of people are hungry and there's likely to be even more insecurity about where the next meal's coming from in future. That's an unacceptable fact for too many people, while the rest of us over-consume. We need to stop consuming and slow down population growth. Then the future would look rosier.

Presenter: Hugo – anything you'd like to say about food and hunger?

Hugo: Yes. Some commentators say there won't be enough food in future – or that there isn't enough food now. Population doesn't outrun the food supply as some would have you believe. We can make and have always made the same land productive. We *are* able to sustain ourselves. It isn't to do with environmental limits, but our own. The only threats to our survival are social and technological systems which need to improve. There's no need for people to be hungry – either now or in future and it's nonsense to suggest otherwise. We don't need more land; we need better ways of using it.

Presenter: Do we all need to become vegan? Bethany?

Bethany: Good question. I think that our food choices do have an impact on nature. We have a lack of diversity in our diets. It may not seem like it but we tend to eat the same few things. Most of what we eat comes from about twelve crops – though there are thousands available – and we eat far more meat than we actually need nutritionally.

Presenter: Hugo?

Hugo: We overfish, too. Not enough of what we do protects water, soil or animals, making current practices unsustainable for the large part. I'm not necessarily convinced that veganism would work for everybody though, or an insect-based diet, as some have suggested.

7.8 and 7.9 (Reading and Use of English Part 2)

I came across a company called Seventh Generation recently. They inspired me to become more sustainable in my life. I mean, I already do my bit – I take my reusable shopping bags to the supermarket, I buy shampoo bars instead of shampoo in plastic bottles, and I walk everywhere I can. But these guys inspired me to push myself even further.

Seventh Generation is an American company which sells cleaning products, paper and personal care products – like hand wash and nappies for babies. They distribute products to natural food stores and supermarkets, amongst others.

'What's so special about that?' you might be asking. Well, they develop their products sustainably, conserving natural resources. They use ingredients in their products that are bio-degradable, plant-based and chlorine-free, and they consider the impact of every decision they make on the next seven generations and beyond.

They've got lots of goals for the future and in the next few years, they're hoping to become a zero-waste company. They'll be doing a lot of things to achieve that goal. These will include reducing the amounts of products and packaging that still end up in landfill despite their best efforts. By 2025, they say that one hundred percent of their products and ingredients will be bio-based – made from plants or renewable materials. By then, they'll also have been working hard to reduce the amount of palm oil they use, and will have replaced 30 percent of it with bio-based oil.

In addition, they're going to ensure that all their packaging will not only be reusable but reused, recyclable, recycled or biodegradable. In other words, they aren't leaving rubbish behind for other people to deal with. What's more, they plan to reduce their greenhouse gas emissions and are promising that the water cycle will not be contaminated during a product's life cycle.

I wonder how many other companies will be following in Seventh Generation's footsteps by 2025, and ensuring a cleaner, greener planet for the future? Many, many more, I hope.

7.10 (Speaking Part 4)

Examiner: Marius, do you think a child's family and friends have less influence on them as the child grows older? Why?

Marius: That's a fascinating question. The whole thing about influence, as we said before, is very complex. For me, I'd say that as a child grows older a parent or sibling's influence becomes less and the balance shifts towards friends, their opinions of friends becomes more significant. And to be honest, I think that's the right way for things to go. As we get older, gain more experience and change as our lives develop, our friends are more in touch with how best to advise us on important matters. For example, if you think about decisions on whether to …

Jeanne: Oh no, I don't agree. For me, the family always knows a person better than anyone else. And what do you mean 'more significant?' I don't understand that at all.

Marius: OK, basically, I'm saying that friends' advice is more relevant, more important than a family member – that is unless you have a particularly close relationship such as …

Jeanne: In my country, family is always important. Your family can help you with any decision.

Marius: I appreciate that. I'm just not sure that a family can necessarily keep track of an individual's development and they may not be best placed to advise on …

Jeanne: What's that 'best placed'? Explain please.

Marius: Well, what I meant was …

7.11 (Speaking Part 4)

Examiner: Marta, do you think a child's family and friends have less influence on them as the child grows older? Why?

Marta: OK, I think, me, that it depends on the family, you know? Sometimes families stay very close and can help advise you all through your life. Perhaps their influence is not so strong because as you get older you have more experience yourself, and you meet new people who can influence you in different ways. And if, for example, you don't stay very close to your family for whatever reason, then their influence is not strong. They don't know you that well as you grow older.

Hans: If I could just come in here?

Marta: Sure – what do you think, Hans?

Hans: I would completely agree with you, Marta. And to expand a little, I would say that if your family has given you good role models when you're young and helped you with useful advice throughout your formative years, then this will have taught you to be independent and choose the right paths when you're older, don't you think?

Marta: You've made a great point there. Could you give an example perhaps of choosing the right path?

Hans: Of course, I was thinking of something like being offered promotion at work maybe, and balancing the extra money against increased workload and pressure. An important decision but one that only you can make!

Marta: Thanks – I see what you mean!

7.12 (Writing Part 2)

Spying, or espionage to give it its proper name, is an intriguing and highly popular topic for both those who create and those who are entertained by fiction. It presents the opportunity to enter a fascinating world of secrets and lies, violence and intelligence, daring, courage, betrayal and patriotism, and the endless surprises at reveals of agents, double-agents, double-double-agents, and so on. Because of this trend we are nearly all now well versed in the nature of espionage and words such as infiltration, defection, counter-intelligence and clandestine operations roll off our tongues easily. The spying profession has a very definite public face in the 21st century.

Interest in fictional espionage was triggered for many by the works of 20th-century writers such as John Le Carré, Somerset Maugham, Frederick Forsyth and Ian Fleming, authors who were informed by their own experiences of working for the secret services. We learnt about spy activity during the two world wars and also during the period of the Cold War when espionage became ever more active and discussed, with regular news revelations about double agents, defectors and exchanges.

What is fascinating is how far back the job of a real spy actually goes. It is one of the oldest professions in the world. As long as there have been wars there have been those sent to discover secrets to be used against the enemy. The methods have developed, the sophistication of the networks and the systems have been refined, but spies still basically do the same work as they did back in ancient China when General Sun Tzu wrote 'The Art of War' in the fifth century BCE. For the British, the art of spying took a great leap forward in Elizabethan times as a result of threats to the Queen, when systems were set up, coding and decoding became sought-after skills and well-organised networks of spies ranged across countries and even continents. To learn more about this really intriguing topic check out my new book which will be …

7.1GF

See Ex 4 on page 111.

7.1VF

1 This is a mass of very small drops of liquid which float in the air, for example, because of evaporation.

2 This is something that makes air, water or soil dangerously dirty.

3 Divers can get this when they come up from deep in the sea too quickly.

4 This is what happens when you combine something with oxygen, making it bad.

5 This is a small amount or piece that is taken from something so that it can be tested or examined.

6 A room or building is this when you let fresh air into it.

7 This is a chemical substance, such as carbon or oxygen, that consists of atoms of only one kind.

8 This means related to the scientific study of drugs and medicines.

7.2VF

See Ex 8 on page 127.

Unit 8

8.1 and 8.2 (Opener)

OK, so, my collection – which I think is totally fascinating – but there again most collectors would say the same – is collecting umbrellas. I'm what is universally known as a 'brolliologist' – there, I bet you've never heard that one before! I guess it comes from the word 'brolly', which is an affectionate name for an umbrella in the UK. I have to admit that it's a bit of an obsession with me. For me, the object is one big contradiction. Just think, a small tube that can be held in a hand magically opens up into something enormous! And the design is endlessly versatile. There are tiny umbrellas (I have a mini collection of cocktail umbrellas) or enormous ones, beach parasols for example. And their traditional eight-panel canopies can carry a range of pictures and messages from artistic designs to advertising slogans.

Another fascinating thing for me is that the design of modern umbrellas is still strikingly similar to that of the very first parasols that were used – it's widely believed – over four thousand years ago in ancient Egypt, China and Greece. In those days, they were used to protect noble women's pale skin when it was blisteringly hot. These early parasols were exquisite. They were painstakingly decorated by craftsmen and symbolised wealth and rank. It was the Chinese who developed a form of waterproofing and they became popular in rainy northern Europe from the sixteenth century onwards. At first, parasols and umbrellas were exclusively used by women, who found that using an umbrella was infinitely preferable to getting drenched. For a while, men considered it too unmanly until the middle of the eighteenth century when a man called Jonas Hanway started to carry an umbrella in public in England, and the trend finally caught on.

Brolliologists like myself are fiercely competitive when it comes to auctions. Some old umbrellas are notoriously difficult to get your hands on. However, I've been lucky and my collection includes examples of most types of umbrellas through their various stages of development. I have umbrellas with intricately carved handles which could also carry items like small bottles or even types of swords; transparent bubble umbrellas, heavy-duty storm umbrellas and a recently designed 16-panel umbrella that is able to go back to its original shape after blowing inside out! I think we've all experienced the frustration of how easily the standard eight-panel umbrella breaks!

I guess I'm weird, but I feel a bit sad for lost and broken brollies. We do tend to take these amazing objects for granted. On the London Underground more than a hundred thousand umbrellas are found every year! However, this does keep the umbrella industry busy. By the way – did you know that most umbrellas are produced in China? And that one city – Shaoxing – has more than a thousand umbrella factories? Amazing!

8.3 (Reading and Use of English Part 8)

Just met someone with a weird phobia. It's a phobia of the number eight, so I thought I'd check it out. I've got a bit of a thing about the number 13 myself – I KNOW it sounds odd, but I've had it since I was young – and I'm definitely not the only one. For example, I try to avoid travelling on a Friday 13th if possible or visiting someone at a number 13! So, I checked out phobias about number eight and apparently there are quite a few people with this, too! It's called octophobia and it's all to do with the way the shape of the number circles in two loops and people get panicked by the idea that you get trapped in it – you can't escape – a bit like an ice skater skating in a figure of eight forever. So, it's got me thinking – are there any people who have phobias about other numbers and why? Let me know! I'm fascinated!

8.4 (Reading and Use of English Part 3)

The concept of infinity is represented by a symbol which looks like the figure eight on its side. The word itself is derived from Latin and means 'without end'. Perhaps infinity is best explained by numbers, which can go on forever. Whatever number you think of, you can always add another to it. In mathematics there are three kinds of infinity – I won't go into that now as it's pretty complex, so I'll just give you a brief overview of infinity in other fields.

Let's start with physics. Some people think that space is infinite, that it just goes on without end. Cosmologists – those who study the physical universe – say that instead, it is curved and finite, but unlimited. They make a comparison with a sphere, like the Earth. It's finite in that you could keep walking in a straight line and you would eventually come back to where you started. But you could also do this forever. Cosmologists think that the universe could be similar. While the universe itself is thought to be finite, the viewpoint of some astrophysicists is that there may even be an infinite number of universes.

In art, the concept of infinity can be seen in perspective. On a painting, you might see a road stretching off along a straight line into the distance, for example. At some point, it will disappear completely, at a point on the horizon. This is known as the vanishing point, an artistic concept related to infinity. The road disappears at an infinite distance from the observer. Use of perspective in art makes space, form and distance look realistic.

Where else do we find the concept of infinity? Well, there's an interesting variation of chess – called infinite chess – in which the game is played on an unbounded board – there are no borders! Then there's the 'infinite loop' in computer programming, a piece of coding which repeats indefinitely. And the infinity symbol itself is used to represent eternal love, and as such is sometimes used in jewellery.

Let me now tell you a little more about …

8.5 and 8.6 (Listening Part 4)

We all know that at a certain time of the evening our bodies start winding down for sleep. We also know that sleep is crucial for health and well-being. We certainly feel more alert after a few hours' shut-eye, with increased energy and better mood. Without enough rest, we can feel sleepy and down.

Scientists have proposed various theories as to why we spend about a third of every day asleep.

One theory is the inactivity, or evolutionary, theory. This suggests that way back in the past, animals which stayed quiet during the hours of darkness were less likely to be attacked by predators or have accidents. Natural selection ensured species that did this survived and this period of rest evolved to become sleep.

The energy-conservation theory encompasses the idea that animals that compete for resources benefit from sleeping in order to conserve energy for times when hunting's most efficient. You can see this in big cats such as lions, for example, which don't move around much unless they are hunting for food, and they rest after eating, too. This allows for effective energy use as sleep reduces the amount of energy we need and use.

A third theory is the restorative theory, which proposes that we need sleep for our bodies to repair and rejuvenate overnight, such as muscle growth and tissue repair. Studies show the detrimental effect on the immune system of sleep deprivation – we couldn't survive without sleep. It improves our cognitive function, too – with a less than optimal amount of sleep, you'll find it harder to perform work or study tasks.

Finally, we come to the brain plasticity theory. Sleep is correlated to changes in the brain in terms of structure and organisation, known as brain plasticity. The brains of babies and young children – who spend 13 to 14 hours asleep every day – develop during sleep.

Although scientists aren't sure yet about which of these theories, or combination of theories, answers the question 'Why do we sleep?', we're on the road to finding out.

8.1EB and 8.2EB (Listening Part 4 – Exam boost)

I suffer from excessive daytime sleepiness, which is known as hypersomnia. I struggle to stay awake when I should be studying or doing other daily tasks, and feel sleepy whatever I'm doing. I have to take frequent naps during the day or I simply wouldn't get through it without dropping off during a meal or even in the middle of a sentence. I sleep for longer than most people during the night as well, and when I wake, it's almost like I haven't slept at all. I'm rarely fully alert, which can be incredibly frustrating when I'm trying to get things done. It does affect my quality of life, though I've made significant lifestyle changes to reduce the condition's impact on me.

8.3EB and 8.4EB (Listening Part 4 – Exam boost)

1 I have narcolepsy, which is a brain condition that causes me to fall asleep at inappropriate times. My brain doesn't regulate sleeping and waking patterns normally, which results in me feeling very drowsy during the day – sometimes I fall asleep suddenly without being able to prevent it. It sometimes happens when I laugh a lot or get angry – I guess it's a kind of response to that. That does make it difficult to have an ordinary life and at present, there's no cure. I find ways round it, though, like scheduling in nap times and rigidly sticking to a regular bedtime. There are tablets you can take, too, but my narcolepsy's well controlled at the moment.

2 Narcolepsy can make life challenging. It makes you drop off without a moment's notice. It can happen anywhere, which can be a bit weird for those around you. The thing I find particularly difficult to deal with is the sleep paralysis – that means my muscles sort of freeze when I'm falling asleep or waking up. I don't drive because of the condition, which isn't too much of an inconvenience as I live in the city centre. In fact, I made the choice to move here for that reason. I also work freelance from home, which means if I really need to go and have a sleep, I can do so without it being problematic. So, I've found ways round it without resorting to medical treatment – I'd take it if I needed to, of course.

8.7 (Listening Part 4)

Speaker 1

People say I could fall asleep on a washing line and that's probably true! It can be tricky waking me up in the morning at times. I certainly sleep more than the average person, and it's difficult to grasp the idea that others suffer from things like insomnia. I simply can't imagine being anxious about going to bed in case it strikes. I did start suffering from headaches at one point, and the doctor said maybe I was sleeping too much. I now go to bed a bit later and wake a little earlier and so far, so good. The headaches haven't returned, which is a relief, though I guess they could come back at some point.

Speaker 2

Now that I've started writing stuff down when I wake up, I know I'll be able to fill the next chapter. I have to get one a day done or I won't meet my self-imposed weekly target – you have to have discipline as a writer. Anyway, if I suffer from block, I turn to my notes and they often spark an idea which gets me going again. Thank goodness I remember my dreams – and weirdly, sometimes even nightmares help, though they've never bothered me in the same way they do other people – I'm fascinated by it all. I'm no sleep expert, though. All I know is that I love tucking myself up at night!

Speaker 3

Apparently, I quote lines from films when I'm asleep. I've woken up hearing myself saying stuff! I'm not a film buff, so who

knows what's going through my mind at the time – I've never got to the bottom of the whole thing. Anyway, my partner thinks it's hilarious to engage me in conversation when I start speaking… But it does interrupt my sleep, leaving me a bit foggy-headed next day. I thought it might help to keep myself cooler – so tried what's known as the Egyptian method – sleeping between slightly damp sheets. There must be something in it cos I've never been so alert on waking and I just get on with the day ahead.

Speaker 4

I have a tendency to sleepwalk! It doesn't bother me cos I don't remember it the next day, though I know my sister's often on high alert because of it, waiting for sounds from the kitchen. I've tried to cook while I'm asleep and she's concerned about me injuring myself, though there are no detrimental physical effects to sleepwalking itself. Now, I ensure I'm not hungry before bed – that seems to make me less likely to sleepwalk! I've realised the constant pressure of my workload might've been having an effect on my sleep too, though. I've been sticking to my new routine and I seem to be managing things better at work for the time being.

Speaker 5

For years I was blissfully unaware of my snoring. As I got older, my big snorts started waking me up! And on occasion I noticed I had a sore throat. I still get that after a particularly heavy snoring session! At least I don't share a bedroom – I'd hate to keep people up because of it. The doctor said there was no underlying medical issue. But it could've created difficulties further down the line. I took his advice about exercising more and sleeping on my side. Reports from flatmates are that it works. I still snore if I'm exhausted, much to their amusement, though problems shouldn't reoccur if I carry on as I have been.

8.8 and 8.9 (Reading and Use of English Part 4)

How often do you take notice of the sky above you? You probably notice particularly impressive sunsets or anvil-shaped storm clouds. The rest of the time you probably barely look up at the grey and white fluffy things floating overhead. If studied more closely, however, the clouds would tell us all kinds of things about the atmosphere.

Meteorologists like me are, of course, very interested in cloud patterns and we do the best we can to use them to interpret the approaching weather. Clouds are classified into ten main groups, first described in 1803 by amateur weather watcher Luke Howard. We still use the terms he invented today. There are rain-bearing clouds, thread-like clouds, high clouds and sheet clouds, amongst others, many of which are instantly recognisable. Some, though, are rather rarer and we may never spot them in a lifetime because they rely on certain conditions that may never occur in our part of the world. Spot one of these beautiful formations, though, and you'll want to see them all!

Many of us dread a darkening sky and thick cloud cover and welcome what we interpret as fine-weather cloud. Meteorologists are interested in all kinds of cloud, of course, and, based on something known as the oktas chart, they can tell us what percentage of the sky is covered. This scale is divided into eighths, so a sky completely covered in cloud is reported as eight oktas, whereas a cloudless sky is zero oktas. Should there be mist or fog around, making it impossible to see the sky, then it is not possible to apply the scale. In some places, such as the UK, a report of eight oktas is not an unusual occurrence, while zero is much less likely – even on sunny days there's often very thin cloud at high altitudes.

Not having a great understanding of weather as a youngster, I, like many other people, believed that the vapour trails left by planes were also a kind of cloud. Known as contrails, they are the result of water vapour leaving jet engines at high speed but they aren't actually clouds. However, if you've ever watched a contrail as its shape shifts, you'll notice that it hangs about for a while, and sometimes eventually turns into a real cloud due to the particles that are left hanging in the sky.

8.10 and 8.11 (Speaking Part 2)

When we think of musical instruments, we tend to talk about violins, guitars, flutes, etcetera but one of the most incredible instruments is actually the human voice. We use all manner of complex sounds and pitches daily to express a whole range of emotions and functions from showing sympathetic concern to giving an instruction, from whispering a secret to barking orders. It reflects our joy and anger, and of course, we use it to sing. The average human singing voice is about one and a half octaves. With professionals that rises to two or above, and that's what we'll be looking at today. There are ways that training can extend your vocal range, in some cases quite significantly. Before we start, a quick question – what do you think the record is for the widest octave range for a singer? No takers? Well, there's a music teacher from China who can sing across six octaves! The record for the lowest note ever produced was only detectable by some audio equipment – much lower than the human ear could pick up. And there's also a guy who claimed to be able to go up 12.5 octaves, imitating bird calls! Still only a claim though! Now, on a practical note (ha!) let's look at our voices and …

8.12 and 8.13 (Speaking Part 2)

I really like this pair of pictures. They both show people using their voices, as you say, but the way they're using their voices is very different, for different reasons. So, starting with a comparison, clearly voice is important in both pictures, but where and why they're using voices is very different. In one, a mother is reading a bedtime story in the intimacy of a bedroom, whereas in the other, a professional singer is entertaining an audience in an auditorium. As to HOW they're using their voices, going back to the first picture, the mum who's telling the bedtime story needs her voice to be soft and interesting, she may well need to impersonate the voices of different characters to bring it alive for her daughter. The professional singer on the other hand, needs a strong, powerful voice that can project into a big space. But there again, she needs to be soft and loud to create the right emotions in the people who are listening. Moving on to the effect on the audiences, I imagine that the child is mesmerised by her mother's voice, and she definitely looks caught up in the story. She's quite possibly feeling sleepy, too – ready for bed. Whereas, the audience listening to the singer could well be feeling emotional, either sad or happy, depending on the song and the singer's expertise. They certainly shouldn't be feeling sleepy!

8.14 (Writing Part 2)

You're looking at a picture of a very famous group of people in the fight for votes for women in the UK at the beginning of the twentieth century – the Suffragettes. Women had started campaigning to be given the same rights to vote as men as far back as 1832, but despite their efforts nothing happened. So, in 1897 the National Union of Women's Suffrage was formed. Their campaign was not successful and in 1903 another group – the Women's Social and Political Union – was created by the now famous Emmeline Pankhurst and

her daughters. They believed that more dramatic action was required to bring their cause to the attention of parliament. Their campaign involved protest rallies and marches, as you can see in the picture. Their action often led to arrests and many ended up in prison, where another tactic they used was going on hunger strike. Some famously chained themselves to railings at a big rally in Hyde Park. However, it wasn't until one campaigner, Emily Davison, was killed by a horse at the Derby racecourse that the women's cause started to have an impact. In 1918 women were finally given the right to vote, but only those over 30. It was another ten years before men and women had equal rights. It hardly seems possible now, does it? The woman in the centre of the picture is probably …

8.1GF

See Ex 4 on page 113.

8.1VF

1 This article looks … to one I read on another website. Perhaps it's the same writer?

2 I was watching a programme about decorating last night and it … about what to do in my room. Can I run it past you and see what you think?

3 I meant to audition for the concert, but I got nervous and couldn't … to go!

4 As soon as I respond to my emails, others arrive. The list is … !

5 They want to build new houses on the field, but the … of the land is being questioned so there will be a delay in the planning.

6 I won't be … to vote in a general election until next year when I'm eighteen.

7 We have to stay … about the project in spite of the poor results so far.

8 All these ideas sound really good but on a … , who is actually going to pay to implement them?

8.2VF

See Ex 5 on page 129.

8.3VF

See Ex 6 on page 129.