

Module 5 includes topics such as human science, the future and technology.

Lead-in p. 63

Ask students to briefly describe the photos before they discuss the lead-in questions in pairs or small groups.

5A The modern world

Photocopiable activity

Activity 5A (p. 101) can be used here. It is a quiz about the human body, designed to be an introduction to the module and will help to pre-teach some useful vocabulary.

Reading pp. 64–65

- 1** It would be a good idea to check the pronunciation of the fields of science before students do the exercise.

1 c 2 f 3 e 4 d 5 a 6 b

- 2** The title of the article makes it quite clear what students are going to read. The book titles might throw up a number of possibilities, which would generate interest in the text.
- 3** Point out to students that only when they have skimmed the article will they be able to predict which part to look in for each question. It would be useful to set a suitable time limit (e.g. 15 minutes) for the task so that students become aware of the time available in the exam, although you could give them a few minutes more at this stage if necessary. Remind students to highlight key words in the questions and if time allows, get them to compare answers in pairs before you check with the class.

1 D 2 D 3 B 4 A 5 D 6 B 7 C 8 A 9 C 10 B

- 4** Get students to discuss the questions in pairs or small groups.

1 In A, his earlier books were on other subjects and therefore this book doesn't follow on.

2–3 Students' own answers

- 5** Additional questions could include: *Have you ever studied any of these subjects? Would you like to?*

Language development 1 pp. 66–67

- 1a** Look at the first sentence and elicit that *I don't feel well* is in the present and *I'm going to be sick* is the consequence in the future. See if students can think of any other possible situations for *I'm going to be sick* (e.g. someone on a roller coaster or someone who has seen/eaten something disgusting). There are a number of possible answers here, so you could ask students to compare answers in pairs before class feedback, or ask more than one student for their ideas for each item.

- 2** Two colleagues/friends are trying to arrange to meet tomorrow but the speaker can't because he/she has a driving test.
- 3** One friend to another. The speaker has bought something, e.g. a mobile phone, and has found that it doesn't work.
- 4** One friend to another. They have a secret and the speaker doesn't trust the third person not to reveal the secret if she is told about it.
- 5** Friends, or husband and wife. They are going to the cinema or theatre and the speaker is waiting for the other person who is still getting ready.
- 6** Two strangers at a supermarket or station. One is offering to carry the other's heavy bag.

- 1b** Encourage students to look at the sentences in their contexts and not just identify future forms that they may already be familiar with.

1 'm going to be **2** 'm taking **3** 'm going to take **4** 'll tell
5 starts **6** 'll carry

- 1c** When students have completed the table, give examples of how a decision might become an arrangement (e.g. *You read a restaurant review and think it sounds good, so you decide: 'I think I'll take X there.'* Later, when someone asks *what your plans are for the weekend: 'I'm going to take X to ... '* Then, after you ring and book the table, you could say: *'I'm taking X to ... '*).

a 3 b 6 c 2 d 1 e 5 f 4

1 planned, definite arrangement (e.g. in a diary)

2 I can't, I'm afraid. I'm taking my driving test tomorrow.

3 planned, fixed (e.g. a public timetable)

4 Hurry up! It starts at eight.

5 planned, decided earlier (intention)

6 Did I tell you it doesn't work? I'm going to take it back to the shop.

7 prediction: we notice something in the present that will make something happen

8 I don't feel well. I think I'm going to be sick.

9 unplanned, decided now (e.g. an offer, a promise)

10 That bag looks heavy. I'll carry it for you.

11 prediction: we expect something to happen (it is our opinion or we have experience of it)

12 I know what she's like. I'm sure she'll tell everyone, so don't tell her!

- 2a Give students time to study the grammar box and sentences and answer the question. Point out that although the present simple is used after the time words, the clause refers to the future.

3

- 2b Get students to compare and discuss their answers in pairs before checking with the class.

1 will be 2 I'm going to visit 3 we get 4 starts 5 I'll cook

6 I'm having 7 Tara's going to have 8 you go

- 3a Students read the quote and underline the examples of the future continuous and future perfect.

future continuous: will be having

future perfect: will have established

- 3b When students have matched the forms with their uses, it might be useful to compare the structures with those practised in earlier units:

The present continuous refers to an action in progress now. The past continuous refers to an action in progress at a point in the past. Hence the future continuous refers to an action in progress at a point in the future.

The present perfect refers to an action before now. The past perfect refers to an action before a point in the past. Hence the future perfect refers to an action before a point in the future.

1 future perfect 2 future continuous

- 3c Get students to compare answers in pairs before checking with the class.

1 will have found 2 will be travelling 3 will have discovered

4 will be living 5 will have taken over, will be providing

6 will be making, will be going

- 4a When students have completed the exercise, show how the language to express certainty is often stressed: We **may** have found life on other planets but I **doubt** it.

1 very certain 2 not certain 3 fairly certain 4 not certain

5 fairly certain

- 4b As students give their opinions on the predictions in Exercise 3c, encourage some discussion leading in to the questions in 4c.

- 4c If time allows, let students discuss the questions in pairs or small groups before sharing their ideas with the class.

- 5a–b Give students enough time to think about and complete the sentences before they discuss them in pairs or small groups.

- 6 Point out that the mistakes are all to do with verb forms. Checking through a piece of writing systematically, in this case just checking the tenses, is an important exam strategy. To help students, you could tell them that there are ten mistakes in the text.

After I **finish** the last year of university, I am definitely going to have a long holiday. I expect I'll **go** with my friend, Luis, to a place where we **will do** lots of sport and **relax** in the sun to recover from all our hard work.

But before that there is a lot of work. My exams **start** on 15 June and they **last** two weeks. The results will not **be** here before the end of August, so I **will have** a long time to wait. For the next month, I **will be studying** for two hours every evening and I **won't be going** out during the week.

Writing pp. 68–69

- 1 Before students look at the questions, get them to briefly describe the photos. Then ask them to discuss the questions in pairs and make notes.

- 2 Go through the task with the students. Refer them to page 177–178 in the Exam reference section and give them some time to think about the questions. Then discuss the answers as a class.

1 d (and possibly b) 2 all the points on page 177–178

- 3a In this exercise, students decide on the best idea for the third point in their essay. Discuss the questions as a whole class. For question 2, elicit ideas from different students.

- 3b Give students time to think about the questions here and make notes, then get them to discuss their ideas in pairs or small groups.

- 3c Students match the topics in the box with the paragraphs. Check answers with the class.

Paragraph 1: state the overall situation (a problem)

Paragraph 2: solution 1: television programmes

Paragraph 3: solution 2: interactive museums

Paragraph 4: solution 3: (your own idea)

Paragraph 5: explain why this is an important topic

- 3d This exercise highlights the main structure of an essay. Give students a couple of minutes to complete the task, then check answers with the class.

a paragraph 1 b paragraphs 2–4 c paragraph 5

- 3e** Allow plenty of time for students to organise their notes into paragraphs. Go round monitoring and providing help as needed.
- 4a** Remind students that the first sentence of a paragraph is the 'topic sentence' and will identify the topic of a paragraph. Give them time to expand the notes into complete sentences and get them to compare answers in pairs before checking with the class.
- 4b** Before students do the exercise, point out that some sentences can go in more than one paragraph. Check answers with the class.

4a–b

- a** Another idea would be to set up interactive science museums in every town, where parents could take their children at the weekends. (paragraph 3 or 4)
- b** As the average scientist is not very well paid, many children are put off from entering science as a career. (paragraphs 2, 3 or 4)
- c** Although young people love gadgets, at school many see science as dull. (paragraph 1)
- d** Whatever we choose, it is vital that more young people are attracted into science. (paragraph 5)
- e** One way would be to have lively television programmes presented by celebrities. (paragraph 2)

- 4c** Students now think about supporting points for each paragraph. Give them enough time to match the pairs of sentences and then complete them using their own ideas. Ask individual students to share some of their sentences with the class.

1 d 2 b 3 c 4 a 5 e

Example sentences:

- 1** The reason is that society's prosperity depends on continued scientific progress.
- 2** They think it means working in a badly paid job in a boring laboratory.
- 3** This worrying attitude has led to fewer young people pursuing a scientific career.
- 4** It's much better to teach children science by getting them to do hands-on experiments which they enjoy.
- 5** This is because we live in a celebrity culture and children identify with well-known actors and singers.

- 4d** Go through the rubric with the class and elicit modal verbs that can be used when giving solutions (*can/could, will/would, may/might*). Also check that students know what a conditional sentence is. Give examples if necessary. Ask students to first complete the gaps in the sentence openings and then to complete the sentences using their own ideas.

Suggested answers:

- 1** One way in which science *could be made* more attractive would be to set up interactive museums.
- 2** Another *idea would be* to find more interesting ways of teaching science.
- 3** If more teachers *used/were to use* games in science classes, children would get more interested.
- 4** If scientists in general *were* better paid, science might be a more attractive subject for young people.

- 5** Students could write their essay in class or for homework. Suggest a time limit of 20–25 minutes.

Sample answer:

Although young people love gadgets and technology, some see science as uninteresting and 'uncool'. Over time, the number of young people, particularly girls, pursuing science and technology studies and careers has dropped.

One way in which science could be made more attractive would be to have lively television programmes presented by celebrities, with subjects which were relevant to the experience of the young. We live in a celebrity culture and children identify with well-known young people.

Another idea would be to set up interactive science museums in every town, where parents could take their children. It's much better to teach children the principles of science through hands-on experiments than to lecture them in a classroom.

Of course, there would be more incentives if the average scientist were better paid and young people were made aware of the range of jobs available. A lot of people are put off a scientific career because they think it means working in a badly paid job in a boring laboratory.

Whichever way we choose, it is vital that more young people are attracted into science, since society's prosperity depends largely on continuous scientific progress.

- 6** Without looking at the checklist on page 198, ask students to work in pairs and make a list of things they need to check when editing their work. Briefly discuss their answers, then refer them to the checklist on page 198 and ask them to check their work (and/or swap with a partner and check each other's).

Expert language: Avoiding over-generalisation

Ask students to look at the example sentence, then write the 'over-generalised' version on the board: *Women are more intelligent than men.* Ask students to compare and comment on the two sentences. Students then complete the task and compare answers in pairs before class feedback. There are a number of possible answers here, so if time allows, elicit different versions of each statement from different students.

Example answers:

- 2** On some occasions technology might do more harm than good.
- 3** For many people dogs can make wonderful pets.
- 4** Some people feel that children should not be allowed to take smartphones to school.
- 5** Generally speaking, I think Canada is one of the best places in the world to live.
- 6** In many situations it might be better to tell a lie than the truth.

5B Technology

As a lead-in, with books closed, ask students the difference between a discovery (something that existed but was not known before, such as penicillin) and an invention (something new that did not exist before, such as the telephone). Ask them what they consider the most important invention in human history.

Speaking pp. 70–71

1 First ask students to briefly describe the two photos (left: teacher operating *smart board* with finger; right: *smart watch* with missed phone call icon). They then look at the spidergram and discuss the questions in pairs or small groups before sharing their ideas with the class.

2a–b Students first match the actions with their definitions and then the actions with the equipment. Check answers with the class.

2a

1 d **2** e **3** g **4** f **5** c **6** a **7** h **8** b

2b

Suggested answers:

digital camera: store

laptop/tablet: download, log on, click on, cut and paste, telework, back up, word process, store

MP3 player: download, store

satnav: download, store, possibly click (on)

smartphone: download, log on, store

2c Get students to discuss this in pairs or small groups, then share their ideas with the class. Elicit as many examples for each item as possible from different students.

Example answers:

1 to listen to music

2 to word process/write an email

3 to click on icons/move the cursor around the screen

4 to telework/for videoconferencing

5 to store/back up data

3 You could also ask what students think computer technology might be used for in the future.

4a Get students to discuss the question in pairs, in preparation for the exam task that follows.

4b Once you have checked students' answers, tell students that it is important in Paper 4 that they know what to do in each part. If they have any doubts, they should check with the examiner. They will not be penalised for this at all. The candidate in the recording summarises the examiner's instructions, which is a good way to check you have understood.

1 a about something together for about two **b** have some time to look at the **c** what the benefits of these items might be

2 we have to discuss why each of these items might be useful

4c Before students listen, point out that in the exam, they can discuss the items in the spidergram in any order. Play the recording for students to complete the task, then check answers with the class.

1 portable gaming devices **2** driverless cars **3** robots

4 3D television **5** ebook readers

Yes, they both participate in the discussion.

4d Elicit the candidates' point of view, then get a few students to share their opinion with the class.

4e Before students answer the question here, ask them what the candidates had to do in this part of the task (decide which item might have the most benefits, in about a minute).

driverless cars; reasons: would be good for older people/the disabled/people who don't like driving; would reduce accidents

4f After checking answers to question 1, ask students what other phrases they can use to express strong/tentative agreement (e.g. *You're absolutely right. I couldn't agree with you more. Absolutely. That's exactly how I feel. I take your point, but I see your point. However, ...*).

1 a I completely agree with you. Good point. Of course. That's true. Yes, you're right.

b I suppose so. Yes, I can see the advantage of ... but ... ; Yes, but ... ; I guess so. Yes, possibly.

2 no

5a These are typical Part 4 questions, extending the topic from Part 3. Students could consider why some are easier to answer than others, e.g. is the language difficult or would they find it hard to come up with ideas and opinions?

5b Go through the rubric before students listen and if necessary, play the recording a second time.

Students should tick questions 2 and 3.

Yes, both candidates participate more or less equally. The interlocutor asks if the other candidate agrees.

6a–b If your class is not equally divisible by three, it would be better to have one or two groups of four, with an extra examiner/interlocutor.

7 Students should discuss their own and the others' performance.

Listening p. 72

1 Before students discuss the questions, ask them to briefly describe the picture; elicit/pre-teach the items illustrated (MP3 player, portable games console, hands-free phone, portable DVD, mobile phone).

2 Emphasise the importance of studying the sentences as carefully as possible before listening. Explain to students that the more they are able to predict the type of words in each gap, the easier it will be to hear the missing information. Play the recording for students to complete the task but do not confirm answers yet.

1 (food) shopping 2 shoes 3 crossword 4 online banking
5 speed 6 (road) accidents 7 (extra) space 8 spellcheck
9 (online) research 10 1980s

- 3 Students should discuss whether their answers fit logically and grammatically and also compare the spelling of more difficult words. After the discussion, confirm answers to Exercise 2.
- 4 Remind or elicit from students what *collocation* means before they do the exercise. During feedback, highlight the *form* of the verbs used (e.g. gerund after the prepositions *from* and *to* in questions 2 and 3). Get students to highlight each collocation and encourage them to record them in their vocabulary notebooks.

1 taking 2 paying 3 booking 4 save 5 catch up 6 try

- 5 The discussion could be done in pairs or small groups, which then feed back to the whole class.

Use of English 1 p. 73

- 1 To remind students of how key word transformations work, you could start by putting the first sentence (*I can't speak Mandarin Chinese.*) on the board and eliciting an alternative way of saying it. Let students compare and discuss their answers in pairs before checking with the class.

1 how to speak; question forms/structures with question words
2 cleaned the house by herself; reflexives (and word order)
3 put off handing in; phrasal verbs (+ -ing)

- 2 Refer students to the strategy on pages 175–176 and elicit or remind them of essential points (e.g. use between two and five words; do *not* change the word given).

1 on my own 2 no point in Tania going 3 love each other
4 wasn't until she left 5 painted this room myself
6 couldn't/didn't carry on working

- 3 The task analysis highlights a number of areas that could be tested in the exam and that students might want to do more practice in if they had problems. If time allows, get them to discuss in pairs or small groups before checking with the class.

1 a 6 b 1, 3, 5 c 4 d 2 2 Students' own answers

Language development 2 p. 74

- 1a As you go through the grammar box with students, you could use simple drawings on the board to illustrate differences (e.g. *He hurt himself*: a man sitting on a chair with an arrow pointing down to indicate *fell off*. *He hurt his sister*: a man and a woman with an arrow pointing from the man towards the woman to indicate *bumped into*. *They talked to each other*: two people facing each other, with speech bubbles. *They talked to themselves*: two people with speech bubbles, but further apart, not facing each other, and with a line between to indicate that they are in separate rooms and talking to themselves!).

She cleaned the house **by herself** last week.
I live **on my own** in this house.
They love **each other** very much.

- 1b Students could discuss their answers in pairs, referring to the grammar summary, before class feedback.

1 I used to live **on** my own.
2 ✓
3 Can you help **me**?
4 Robots can't talk to **each other/one another**.
5 ✓
6 Have you enjoyed **yourself**?
7 ✓
8 Relax **yourself**!
9 I built the model **on** my own.
10 Clare and Rob met **each other/one another** last year.

- 1c Point out that students will need to use object pronouns here, as well as language from the grammar box.

1 own 2 itself/themselves 3 myself 4 myself 5 each other/one another/them 6 us 7 themselves 8 me 9 themselves

- 2 After question 1, as a contrast, you could ask: *What things do you prefer to do **by** yourself?*
- 3a Go through the grammar box with students before they do the exercise, pointing out that the word order in B (*question word + clause*) is as in a statement, not as in a question. Get students to compare answers in pairs before you check with the class.

1 know how to use 2 you've done what I 3 where to find/where we can find 4 know who to/know who I should

- 3b If students can't think of anything true to write, encourage them to try to invent interesting sentences.

Use of English 2 p. 75

- 1 Set the questions as a quick competition in groups. Check that students know *penicillin* (today, a medicine known as an antibiotic because it kills bacteria and so helps cure infections).

1 Alexander Fleming 2 Isaac Newton 3 Archimedes

Background

- 1 Sir Alexander Fleming: see texts on p. 75 (Ex. 2a and 2b).
2 In the first century BC, Archimedes discovered that an object placed in water 'loses' an amount of weight equal to the weight of the water that it has displaced. He is said to have discovered this when he got into a full bath and it overflowed.
3 Sir Isaac Newton discovered gravity in 1687, stating that gravity is the force of attraction between two objects and that greater objects, such as the earth, pull smaller objects, such as people, towards them. He is said to have discovered this watching an apple fall from a tree to the ground.

- 2a Remind students not to focus on the gaps. They should only need a minute or so to do this exercise. Students might need help with the words *mould* and *germs*.

1 penicillin 2 mould 3 bacteria 4 important

- 2b** Get students to do the exercise on their own and then compare answers in pairs before class feedback.

1 investigation **2** accidentally **3** unknown **4** delighted
5 excitement **6** effective **7** infections **8** successfully

Help:

2 an adverb **7** plural

- 3a–b** Repeat the process with the second text but this time you could introduce a suitable time limit (e.g. 8–10 minutes). When students have finished, ask them which of the three discoveries in Exercise 1 they think is the most important.

3a

Lucy's Baby was important because of the completeness of the remains and therefore the opportunities it gave for research.

3b

1 careful **2** length **3** researchers **4** unusual **5** development
6 mixture **7** criticism **8** insufficient

Help:

5 -ment **8** negative

Language development 3 p. 76

- 1** Explain to students that nouns can be formed from verbs or adjectives. This exercise focuses on nouns formed from verbs. Check that students know the meaning of the words in the table, then practise pronunciation/stress.

-ment: excitement, development
 -ure: mixture
 -ence: evidence
 -tion/-sion: investigation, infection, conclusion
 -y: discovery
 -er: researchers
 -or: ancestors

- 2a** Before students do the exercise, ask if they know of any famous explorers. Get them to compare answers in pairs, but do not confirm yet as students will read about the explorers in this quiz in Exercise 2b.

1 B **2** A **3** C **4** A

- 2b** Get students to compare answers in pairs first, then check with the class. Finally, elicit the correct answers to the quiz questions in Exercise 2a.

1 assistance, organisation **2** existence, achievement
3 sailors, equipment **4** explorer, failure

- 3a** This exercise focuses on nouns formed from adjectives. Again, check that students know the meaning of the words, then focus on pronunciation.

-ness: illness, kindness, loneliness, sadness
 -th: strength, truth, width
 -ity: equality, generosity, popularity, reality

- 3b** Get students to compare answers in pairs before checking with the class.

1 popularity **2** descriptions **3** ability, importance
4 observations, loneliness

- 4a** Go through the sentence with the class. Encourage students to try to guess the meaning of the phrasal verb by looking at the words around it.

C

- 4b** Students could use their dictionaries to check their answers here. Encourage them to record the phrasal verbs in their vocabulary notebooks, with example sentences.

1 b **2** d **3** f **4** a **5** g **6** e **7** c

- 4c** Remind students to put the verbs in the correct form. After checking answers, you could provide personalised practice by giving students sentence stems to complete, e.g.

1 The best idea I've come up with is/was ...

2 I once tried ... but it didn't come off.

3 Once when I was looking for ... I came across ...

4 Recently I came up with ...

1 come up **2** came round **3** come out **4** came across
5 come about **6** come off **7** come up with

Photocopiable activity

Activity 5B (p. 102) can be used here. It is a game of dominoes in which students form nouns by joining suffixes to verbs.