

The MIT factor: celebrating 150 years of maverick genius

by Ed Pilkington

The Massachusetts Institute of Technology has led the world into the future for 150 years with scientific innovations.

The musician Yo-Yo Ma's cello may not be the obvious starting point for a journey into one of the world's great universities. But, as you quickly realise when you step inside the Massachusetts Institute of Technology, there's precious little going on that you would normally see on a university campus. The cello, resting in a corner of MIT's celebrated media laboratory – a hub of creativity – looks like any other electric classical instrument. But it is much more. Machover, the composer, teacher and inventor responsible for its creation, calls it a 'hyperinstrument', a sort of thinking machine that allows Ma and his cello to interact with one another and make music together. 'The aim is to build an instrument worthy of a great musician like Yo-Yo Ma that can understand what he is trying to do and respond to it,' Machover says. The cello has numerous sensors across its body and by measuring the pressure, speed and angle of the virtuoso's performance it can interpret his mood and engage with it, producing extraordinary new sounds. The virtuoso cellist frequently performs on the instrument as he tours around the world.

Machover's passion for pushing at the boundaries of the existing world to extend and unleash human potential is not a bad description of MIT as a whole. This unusual community brings highly gifted, highly motivated individuals together from a vast range of disciplines, united by a common desire: to leap into the dark and reach for the unknown.



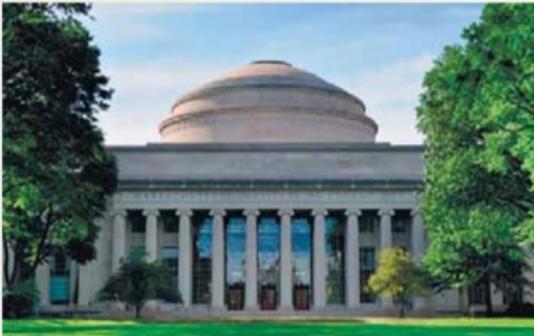
MIT students at a physics class take measurements in 1957

The result of that single unifying ambition is visible all around. For the past 150 years, MIT has been leading the world into the future. The discoveries of its teachers and students have become the common everyday objects that we now all take for granted. The telephone, electromagnets, radars, high-speed photography, office photocopiers, cancer treatments, pocket calculators, computers, the Internet, the decoding of the human genome, lasers, space travel ... the list of innovations that involved essential contributions from MIT and its faculty goes on and on.

From the moment MIT was founded by William Barton Rogers in 1861, it was clear what it was not. While Harvard stuck to the English model of a classical education, with its emphasis on Latin and Greek, MIT looked to the German system of learning based on research and hands-on experimentation. Knowledge was at a premium, but it had to be useful.

This down-to-earth quality is enshrined in the school motto, *Mens et manus* – Mind and hand – as well as its logo, which shows a gowned scholar standing beside an ironmonger bearing a hammer and anvil. That symbiosis of intellect and craftsmanship still suffuses the institute's classrooms, where students are not so much taught as engaged and inspired.

Take Christopher Merrill, 21, a third-year undergraduate in computer science. He is spending most of his time on a competition set in his robotics class. The contest is to see which student can most effectively program a robot to build a house out of blocks in under ten minutes. Merrill says he could have gone for the easiest route – designing a simple robot that would build the house quickly. But he wanted to



try to master an area of robotics that remains unconquered – adaptability, the ability of the robot to rethink its plans as the environment around it changes, as would a human. 'I like to take on things that have never been done before rather than to work in an iterative way just making small steps forward,' he explains.

Merrill is already planning the start-up he wants to set up when he graduates in a year's time. He has an idea for an original version of a contact lens that would augment reality by allowing consumers to see additional visual information. He is fearful that he might be just too late in taking his concept to market, as he has heard that a Silicon Valley firm is already developing something similar. As such, he might become one of many MIT graduates who go on to form companies that fail. Alternatively, he might become one of those who go on to succeed in spectacular fashion. And there are many of them. A survey of living MIT alumni* found that they have formed 25,800 companies, employing more than three million people, including about a quarter of the workforce of Silicon Valley.

What MIT delights in is taking brilliant minds from around the world in vastly diverse disciplines and putting them together. You can see that in its sparkling new David Koch Institute for Integrative Cancer Research, which brings scientists, engineers and clinicians under one roof. Or in its Energy Initiative, which acts as a bridge for MIT's combined work across all its five schools, channelling huge resources into the search for a solution to global warming. It works to improve the efficiency of existing energy sources, including nuclear power. It is also forging ahead with alternative energies from solar to wind and geothermal, and has recently developed the use of viruses to synthesise batteries that could prove crucial in the advancement of electric cars.

In the words of Tim Berners-Lee, the Briton who invented the World Wide Web, 'It's not just another university. Even though I spend my time with my head buried in the details of web technology, the nice thing is that when I do walk the corridors, I bump into people who are working in other fields with their students that are fascinating, and that keeps me intellectually alive.'

adapted from the Guardian

* people who have left a university or college after completing their studies there

5 Work in pairs.

- 1 Look at Question 1 in the task below and the underlined words. Scan the passage to find the same or similar words.
- 2 Underline words or phrases in Questions 2–5 that might also occur in the passage.
- 3 Scan the passage and underline the same or similar words to those in the question.

Questions 1–5

Do the following statements agree with the information in the reading passage?

Write

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

- 1 The activities going on at the MIT campus are like those at any other university. *false*
- 2 Harvard and MIT shared a similar approach to education when they were founded. *false*
- 3 The school motto was suggested by a former MIT student. *wy*
- 4 MIT's logo reflects the belief that intellect and craftsmanship go together. *true*
- 5 Silicon Valley companies pay higher salaries to graduates from MIT. *wy*

6 Read Questions 1–5 carefully, then read around the words you have underlined in the passage and decide whether each question is True, False or Not Given.

Exam advice True / False / Not Given

- Underline words or phrases in the question that will help you quickly scan for the right place in the passage.
- Read each statement carefully and decide on the main idea. Compare this with what is stated in the passage.
- Write 'TRUE' if the ideas are the same. If the passage says the opposite of the information in the question, write 'FALSE'; if the passage does not include the information expressed in the question, write 'NOT GIVEN'.

- 7 Read Questions 6–9 and quickly check what information you need for each gap. Then, using the title to find the right part of the passage, answer the questions.

Questions 6–9

Complete the notes below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Christopher Merrill – student at MIT
Degree subject: 6 computer science
Competition: to 7 program the automated construction of a house
Special focus on: the 8 adaptability of robots
Future plans: to develop new type of 9 contact lens

Exam advice Note completion

- Use the title to find the right place in the passage.
- Read the notes and decide what type of information you need for each gap.
- The information in the notes may be in a different order from the information in the passage.
- Be careful to copy words from the passage in exactly the same form.

8 Work in pairs.

- Read Questions 10–13 and quickly check what information you need.
- Underline words in the questions which will help you to find the right place in the passage.
- Answer Questions 10–13.

Questions 10–13

Answer the questions below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

- What proportion of workers at Silicon Valley are employed in companies set up by MIT graduates? 1/4
- What problem does MIT's Energy Initiative aim to solve? global warming
- Which 'green' innovation might MIT's work with viruses help improve? electric cars
- In which part of the university does Tim Berners-Lee enjoy stimulating conversations with other MIT staff? corridors

Exam advice Short-answer questions

- Underline words in each question which help to find the right place in the passage. The questions follow the order of information in the passage.
- Read that part carefully and underline the answer.
- Copy the answer exactly, without including any unnecessary words.

9 Check your answers. You can lose marks with:

- answers that are hard to spell.
Did you copy your answers for Questions 6, 8 and 9 correctly?
- answers that consist of a phrase, rather than a word.
Did you write both words for Questions 6, 9, 11 and 12?
- questions that can easily be misinterpreted.
Is your answer to Question 10 a proportion and not a number?
Is your answer to Question 12 an innovation?



10 Work in small groups.

- What personal qualities do you think inventors require?
- Which areas of technology do you think governments should spend money on at the moment? Why?
- What sort of things do you think will be invented in the future?
- If you could invent something, what would it be?

1. Writing – Bar chart

Workbook, p 11, ex 1, 2, 3. I won't collect your papers, we'll discuss bar chart description in class.

IELTS_Computer science → Writing_task 1 → Bar chart

2. Reading

Workbook, pp 12-14, ex 1 p 12, ex 2 p 13 (questions 1-14)

3. Language work

Student's book, ex 1, 2 p 22; Workbook, ex 1, p 15

4. Listening

Sections 2-3.

Задания по аудированию надо скачивать (если не открываются)

5. Speaking

Our topic for discussion "Colours".

IELTS_Computer science → Topics → Colours

Look through the uploaded texts and answer IELTS questions about colours.

Part 1 – appr. 2 sentences per one question.

Part 2 – you have to speak for 2 minutes on a topic.

Part 3 – appr. 3-5 sentences per one question.

SECTION 1 Questions 1–10**Questions 1 and 2**

Choose the correct letter, A, B or C.

Example

In the library George found

- A a book.
 B a brochure.
 C a newspaper.

1 In the lobby of the library George saw

- A a group playing music.
 B a display of instruments.
 C a video about the festival.

2 George wants to sit at the back so they can

- A see well.
 B hear clearly.
 C pay less.

Questions 3–10

Complete the form below.

Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

**SUMMER MUSIC FESTIVAL
BOOKING FORM**

NAME: George O'Neill
ADDRESS: 3 ... 48 North Avenue, Westsea
POSTCODE: 4 ... WS6 2YH
TELEPHONE: 5 ... 01674 553242

Date	Event	Price per ticket	No. of tickets
5 June	Instrumental group — Guitarrini	£7.50	2
17 June	Singer (price includes 6 ... drinks ... in the garden)	£6	2
22 June	7 ... friends ... (Anna Ventura)	£7.00	1
23 June	Spanish Dance & Guitar Concert	8 £ ... 10,50	9 ... 4

NB Children / Students / Senior Citizens have 10 50% discount on all tickets.

SECTION 2 Questions 11–20**Questions 11–15**

Complete the sentences below.

Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

The Dinosaur Museum

- 11 The museum closes at 9.30 p.m. on Mondays.
 12 The museum is not open on ~~it~~ bee
 13 School groups are met by tour guides in the ~~parking~~ ^{lot}
 14 The whole visit takes 90 minutes, including 45 minutes for the guided tour.
 15 There are ~~some~~ ^{tables} behind the museum where students can have lunch.

Questions 16–18

Choose THREE letters, A–G.

Which THREE things can students have with them in the museum?

- A food
 B water
 C cameras
 D books
 E bags
 F pens
 G worksheets

Questions 19 and 20

Choose TWO letters, A–E.

Which TWO activities can students do after the tour at present?

- A build model dinosaurs
 B watch films
 C draw dinosaurs
 D find dinosaur eggs
 E play computer games

SECTION 3 Questions 21–30**Questions 21–24**

Choose the correct letter, A, B or C.

Field Trip Proposal

- 21** The tutor thinks that Sandra's proposal
 A should be re-ordered in some parts.
 B needs a contents page.
 C ought to include more information.
- 22** The proposal would be easier to follow if Sandra
 A inserted subheadings.
 B used more paragraphs.
 C shortened her sentences.
- 23** What was the problem with the formatting on Sandra's proposal?
 A Separate points were not clearly identified.
 B The headings were not always clear.
 C Page numbering was not used in an appropriate way.
- 24** Sandra became interested in visiting the Navajo National Park through
 A articles she read.
 B movies she saw as a child.
 C photographs she found on the internet.

Questions 25–27**Choose THREE letters, A–G.**

Which THREE topics does Sandra agree to include in the proposal?

- A climate change
- B field trip activities
- C geographical features
- D impact of tourism
- E myths and legends
- F plant and animal life
- G social history

Questions 28–30

Complete the sentences below.

Write ONE WORD AND/OR A NUMBER for each answer.

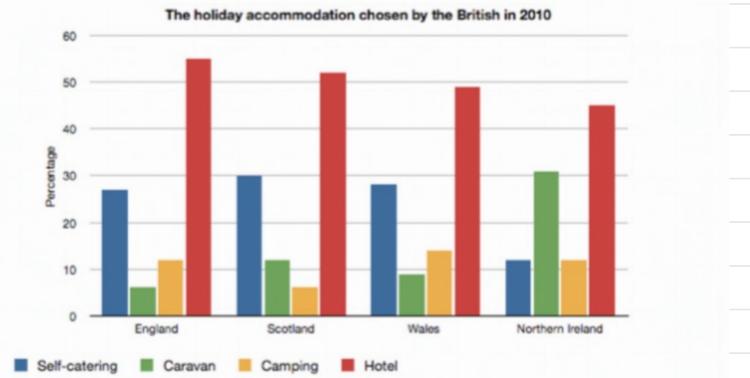
- 28** The tribal park covers 12,000..... hectares.
- 29** Sandra suggests that they share the buses..... for transport.
- 30** She says they could also explore the local caves.....

Things to remember:

1. Don't look at the whole chart, look at the x axis and the y axis separately.
2. Look at the extremes. Which is the biggest/longest?
3. Look for patterns – these are also important.
4. Note that a pattern can have exceptions. Note exceptions – these are also details you want to include.

IELTS Task 1

The bar chart below shows the different types of accommodation chosen by the British when they went on holiday in 2012. Summarise the information by selecting and reporting the main features, and make comparisons where relevant



Key points:

- hotels were the most common form of accommodation at over 50% ✓
- self-catering was second most popular (just below 30%) but there is one major exception ↗ Northern Ireland ↘ N.I.
- caravan and camping holidays were typically least popular (around 10%) but again there was an exception ↘ N.I.
- England, Scotland and Wales follow a broadly similar pattern (Scotland is only slightly different)
- the popularity of caravanning in Northern Ireland needs to be highlighted

Here the 2 main choices you have are:

- go through each type of accommodation (the y axis option)
- go through the countries (the x axis option)

The choice would be to use the countries. There are only 4 of them and 3 of those are very similar and it seems natural and easy to group England, Scotland and Wales together. Northern Ireland is the odd one out.

Clothes we wear

Useful expressions

- stay away from all black or all navy ~~unfortunate~~
- try to avoid white and black, pastels, any kind of faded color
- try warm colors such as rich browns, orange-yellow, olive green, deep reds, deep purples
- wear cool gray, ice blue, white, and navy
- colour goes with / doesn't work well with / suits / flatters

Summer

Summer types look best in soft pastels with blue undertones. Grey and blue hues (from pastel

blue to navy) will also look great. However, yellow-based colours such as orange, tan, mustard, coral and salmon pink are less flattering, and pure white may wash you out, so opt for soft-off-white tones, instead.

3 It is scientifically proven knowledge that certain colours affect us in their own ways, and I share this view. It's seen my psychosocial, evolutionary standpoint, and it's something we use on daily basis, for example this knowledge is required for creation of a good design for software, so we are even going to have lectures on it. Also, from our everyday experience, some colours like green or blue calm us, while red and orange make us anxious. At the colder hues probably have a 'cooling' effect, which I actually experienced living in a blue-painted room

Spring

Spring types suit warm 'true' brights such as brick red, coral, salmon pink and true blue. Beige and ivory hues will also flatter. However, icy pastels, deep tones and dusky or muted shades may drain you.

Autumn

Warm, muted tones like olive green, terracotta red and burnt orange enhance autumnal complexions (think autumn leaves). You can get away with navy, but other blue-toned hues are best avoided.

Room Color and How it Affects Your Mood

People make home beautiful by choosing colors that reflect their preferences and personalities.

Color has the power to change the shape and size of furnishings, as well as the shape and size of the room itself.

Each color has a psychological value. You should think about how certain colors make you feel; they can influence any emotion, from tranquility to rage.

Light colors are spacious and airy, making rooms seem larger and brighter. Dark colors are sophisticated and warm; they give large rooms a more intimate appearance.

Red raises a room's energy level. The most intense color, it pumps the adrenaline like no other hue. It is a good choice when you want to stir up/provoke excitement. In the living room or dining room, red draws people together and stimulates conversation.

Yellow captures the joy of sunshine and communicates happiness. It is an excellent choice for kitchens, dining rooms and bathrooms, where it is energizing and uplifting. Even though yellow although is a cheery color, it is not a good choice for main color schemes. Studies show that people are more likely to lose their temper in a yellow interior.

Blue is a strongly evocative color, associated with the sky and the sea, immense, calming and tranquil. Blue walls can bring lot of perspective to a room.

A pastel blue can come across as unpleasantly chilly on the walls and furnishings, however, especially in a room that receives little natural light. If you opt for a light blue as the primary color in a room, balance it with warm hues for the furnishings and fabrics.

Green is considered the most restful color for the eye.

Purple, in its darkest values (eggplant, for example), is rich, dramatic and sophisticated. It is associated with luxury and creativity; as an accent or secondary color, it gives a scheme depth. Lighter versions of purple, such as lavender and lilac, bring the same restful quality to bedrooms as blue does, but without the risk of feeling chilly.

Orange evokes excitement and enthusiasm, and is an energetic color. This color is great for an exercise room; it will bring out all the emotions that you need released during your fitness routine.

Neutrals (black, gray, white and brown) are basic to the decorator's tool kit.

Black is best used in small doses as an accent. Indeed, some experts maintain that every room needs a touch of black to ground the color scheme and give it depth.

Crimson can make some people feel irritable. Invoking feelings of rage and hostility, this is a color that should be avoided as the main color of a room.

1. I think the colours with special connotations to them are maybe black and white, one for funeral and mourning, and one for purity, these are from somewhat religious traditions. Also, especially relevant to Russia, but probably settled worldwide now is the connotation of the colour red as the colour of COMMUNISM. For Russians it's mostly associated with the USSR.

4 Well, probably, depending on what I meant by different types. Maybe creative people like bright colours more, optimists allegedly prefer bright tones, and pessimists, more inward-oriented people, introverts, such as I prefer calmer and more neutral tones, but these groups might intersect and also it depends greatly on the mood and the desire to stand out from the crowd.

Recent

Part 1 I don't particularly have a favorite colour, but I like deep purple and its hues and I prefer black and grey as they're very practical. What is your favorite colour / colour you really like / colour you always prefer?

Do you prefer light, bright or dark colours? I like deep dark tones, but I also don't mind bright colors now and then.

I certainly prefer dark clothes, as I think they're less easy to get stained, also they go together with practically anything.

Do you prefer to wear light or dark (or, bright) coloured clothes?

I suppose, to some extent, as means of self-expression. I was a rather aloof child, so I wanted to look as intimidating as I could, so I used to and now stick to darker tones.

Were colours important to you when you were a child? Are colours important to you? As I could, so I used to and now stick to darker tones.

When you are buying something, is the colour important to you? Yes, I usually try to choose practical colours that will go with other items.

My favorite room is teal/turquoise, and we chose it to complement the accent wall with Van Gogh wallpaper. A bright colour that scared us.

I now have walls painted grey and deep green, but I'd probably like to try orange/yellow.

What colour would you choose to paint the walls of your room?

I wouldn't like pink, for sure, and red probably. Not the right mood.

Is there any colour you would not want your walls to be? Is there any colour you would not want your walls to be?

I don't as much as dislike, but I don't like rose and sky-blue, as they're overused in gender-targeted advertisement.

Do you usually wear clothes in your favorite colour? No, I mostly wear black as it is neutral, and my favorite is too expressive.

Is colour very important to you when you are buying clothes? Yes, I like my clothes to be practical and easy to combine.

Part 2 2 minutes

Describe your favourite colour.

You should say: My favorite colour is a deep-dark purple/violet. In culture it mostly associates with royalty and wealth.

- what is it
- what is the significance of this colour
- how you started liking it

and explain why do you like this colour. It reminds me of violets, which I like, and which

were at a poem by Poland Leighton, which I also like.

I don't remember when exactly I started liking it, but I think it

was in childhood. I fancy it because it's vibrant, deep and

for me is associated with calm and serenity.

Several years ago I bought a very bright

Describe something colourful that you bought in the past. Several years ago I bought a very bright

You should say: and vibrant backpack. I bought it due to a sudden urge

- why you bought the item
- what it looks/looked like
- what other people think/thought of it

and explain how you feel/felt about this item

a print of cartoonish ducks and little orange

appendages on their backs. Pretty much everyone adored this shiny feature,

as well as I, I love it to this day.

Describe a colourful event that you particularly enjoyed.

You should say: So, one of the most colourful events I attended was a musical concert

- why you were there
- who you were with
- what you saw around you

and explain why you enjoyed the event so much.

the cathedral and also the life-like

accompanying the music. It was very moving and

emotional, so I enjoyed it very much.

Part 3 2 - 5 min

1. Are there any colours that have a special meaning in your country?

2. I'd say that I believe tastes differ

between the gender groups as much as

they differ within them, but in our society certain

colours influence humans behaviour, so we can see the differentiation, darker colours for

men and more bright for females.

3. Do you think different colours can change our mood / affect people's moods?

However, this is also a deeply cultural thing.

4. Do you think different types of people like different colours?

Point I believe that personal tastes, as

much unaffected as the society as they can be (they can't) are wildly diverse, much wilder than we see.

Writing Task 1

- ① Look at the graph below and complete this introductory sentence by arranging the expressions in the box.

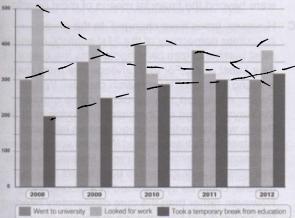
had over a school leavers three things that five-year period information about

The graph gives us information about the three things that school leavers did over a five-year period.

The graph below gives the results of a survey showing what 1,000 young people did after leaving school between 2008 and 2012.

Summarise the information by selecting and reporting the main features, and make comparisons where relevant.

School leavers 2008–2012



- ② Complete the rest of the answer with words and phrases from the box.

by just over the same amount
continuous and steady differences less marked
more detailed most remarkable fluctuated
significant changes increasing steadily

At the beginning of the five-year period, about half of the school leavers surveyed looked for work. Of the remaining 500, 300 went to university and 200 took a temporary break from their education. By the end of the five years, however, the figures for those seeking employment and for those taking a break from their education had seen 1 significant change. The former had fallen 2 by just over a hundred, while the latter had risen 3 by the same amount. Meanwhile, the number of school leavers going to university was

the same as it had been at the beginning of the period. Overall, the 5 differences between the three groups had become 6 less marked

A 7 more detailed look at the graph reveals that

the number of school leavers going to university and the number of leavers looking for work 8 fluctuated. Between 2008 and 2010, the former increased while the latter decreased. Then in 2011 and 2012, the number of those going to university fell, while after 9 stagnating briefly in 2011, the number of those looking for employment rose. The number of school leavers taking a break from their education saw a 10 continuous and steady

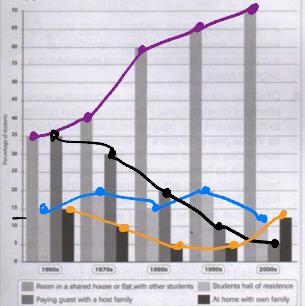
Overall, the 11 most noticeable changes involved the number of school leavers looking for work and those taking a break from education. This shows that more young people planned to enter higher education, even though they decided to wait a while before doing so.

- ③ Now write your answer to this Writing task in about 20 minutes. Your answer should be at least 150 words long.

The graph below shows the percentage change in places where students lived over five decades.

Summarise the information by selecting and reporting the main features, and make comparisons where relevant.

Types of student accommodation, 1960s–2000s.



Getting higher qualifications (1)

→ 5

In the graph we can see how the percent of students with different accommodations changed in the five decades.

As can be seen, in the 1960s a large majority, 70% were equally distributed between rooms or flats shared with other students and staying with host families for payment. Another 20% was divided between halls of residence and family-homes 15% each. 5 decades later, however, striking 70% were renting ex room with fellow students, and other categories had modest figures of around 10-15% for halls of residence and family homes and 5% for host families.

Looking more closely, we can see that there were two main tendencies. The first one is fluctuating and declining slightly, which applies to halls of residence, which peaked twice in 1970 and 1980s at 20% and eventually

fell to 12,5%, just 2,5% below their original state. Similarly enough, the amount of students staying at home after declining and hitting the bottom and stagnating at 5%. From 1980 to 1990, rose to 12,5% in 2000, which is equal to the halls of residence and similarly just below the numbers of the 1960s.

Different situation, however, is observed for paying host families and reaching a peace with other students, the former falling steadily and bottoming at 5% in 2000, which is a tiny one seventh of the initial number. At the same time, renting a flat rose by 100%, reaching a vast majority in 2000.

Unit 2

Colour my world

Reading Section 2

1 Quickly read the passage below, which is about the colour purple. Match the names of the people (1–6) with the thing they do or did (a–e). There is one person who does not match any of the letters.

- 1 William Perkin *c*
- 2 August Wilhelm von Hofmann *d*
- 3 Simon Garfield *e*
- 4 Queen Victoria *a*
- 5 Dr Max Luscher *a*
- 6 Julia Kubler *c*

- a believed that colours could be used to treat illnesses
- b wrote a biography about an historical figure
- c uses colours as a form of alternative medicine
- d invented an artificial dye
- e taught chemistry

An invention to dye for: the colour purple

A 19th century research chemist was trying to make medicine when, instead, he came up with a coloured dye that has ensured the world is a brighter place.

A Of all the colours, purple has perhaps the most powerful connotations. From the earliest cultures to the present day, people have sought to harness its visual power to mark themselves out as better than those around them. From bishops to kings, pop stars to fashion models, its wearing has been a calculated act of showing off. In ancient Rome, for example, purple was such a revered colour that only the emperor was allowed to wear it. Indeed, an emperor who was referred to as *porphyrogenitus*, ('born to the purple') was especially important, since this meant that he had inherited his position through family connections rather than seizing power through military force.

B But why purple? At that time, purple dye was an expensive substance produced in a complicated, foul-smelling and time-consuming process. This involved boiling thousands of molluscs in water in order to harvest their glandular juices. The technique had originally been developed by the Phoenicians over a thousand years previously, and it hadn't changed since. Cheaper but poorer quality purple dyes could be made from lichens using an equally messy and unpleasant procedure, but they were not as bright, and the colour quickly faded. It was no surprise, therefore, that good purple dye was a rare and precious thing, and clothes dyed purple were beyond the financial means of most people.

C However, times have changed. In the great consumer democracy of the 21st century, even the most humble citizen can choose it as the colour of their latest outfit. For that privilege, we must thank a young 19th century research chemist, William Perkin. A talented 15-year-old when he entered the Royal College of Chemistry in London in 1853, Perkin was immediately appointed as laboratory assistant to his tutor, August Wilhelm von Hofmann. He became determined to prove Hofmann's claim that quinine, a drug used to treat fevers such as malaria, could be synthesised in a laboratory. However, rather than the cure desperately needed for people dying from malaria in tropical countries, he produced little more than a black, sticky mess that turned purple when dissolved in industrial alcohol. Perkin's experiments could have been a complete waste of time, but to his surprise and, ultimately, financial benefit, his purple liquid turned out to be a long-lasting dye that was to transform fashion.

D Perkin repeated his experiments in an improvised laboratory in his garden shed, perfecting the process for making the substance he had called mauveine after the French mallow plant. It was, says Simon Garfield, the author of *Mauve* which details Perkin's life and work, an astonishing breakthrough. 'Once you could do that you could make colour in a factory from chemicals rather than insects or plants. It opened up the prospect of mass-produced artificial dyes and made Perkin one of the first scientists to

bridge the gap between pure chemistry and its industrial applications.' It didn't take long for the chemist, still only 18, to capitalise on his creation, patenting the product, convincing his father and brother to back it with savings, and finding a manufacturer who could help him bring it rapidly to the market. The buying public loved it, and clothes coloured with purple started appearing in shops up and down the country.

Appropriately, considering the origins of Perkins' colour, he was to receive a helping hand from the two most important women of the day. Queen Victoria caused a sensation when she stepped out at the Royal Exhibition in 1862 wearing a silk gown dyed with mauveine. In Paris, Napoleon III's wife, Empress Eugenie, amazed the court when she was seen wearing it. To propel the scientist further on the way to a great fortune, the fashion of the time was for broad skirts that, happily for him, needed a lot of his revolutionary new dye.

E Perkins, ever the serious scientist, would have been among the first to point out that his mauve is just one of a range of colours described in everyday language as purple. Not itself a true colour of the spectrum – that position is given to indigo and violet – purple normally refers to those colours which inhabit the limits of human perception in the area between red and violet. Newton excluded the colour from his colour wheel. Scientists today talk about the 'line of purples' which include violet, mauve, magenta, indigo and lilac.



F In the alternative medical practice of colour therapy, which practitioners say can trace its origins back to ancient India, the 'purple range' colours of indigo and violet are vital. They refer to spiritual energy centres known as chakras and are situated in the head. The colours and their 'medical' qualities were first officially listed by the Swiss scientist Dr Max Luscher, who said that appropriately coloured lights, applied to specific chakras, could treat ailments from depression to grief. Julia Kubler is one of Britain's leading colour therapists and has been using colours to treat patients at her clinic at Manningtree, Essex, for 15 years. Purple, she says, 'is consistent with intuition and higher understanding, with spirituality and meditation. It combines the coolness of blue with a bit of red that makes it not just passive but active.'

It is hardly the most outlandish of claims for this most enigmatic of colours. Variously touted as the colour of everything from insanity to equality, it is enjoying a new role as the symbol of political compromise. Purple may have had its origins in the ancient world, but thanks to a young chemist, it still has a brilliant future.

2 Look at Questions 1–14 below, and underline the key words and phrases. Then look for the answers in the passage.

Questions 1–6

The reading passage has six sections, A–F.

Choose the correct heading for each section from the list of headings below.

List of headings

- i From the laboratory to the High Street
- ii ~~Catching the eye~~
- iii An unexpected but fortunate side result
- iv The healing power of purple
- v An old problem
- vi Standing out from the crowd
- vii Finding an alternative cure for a common illness
- viii Part of a larger family
- ix An ancient manufacturing practice

- | | | | |
|-------------|-----|-------------|------|
| 1 Section A | vi | 4 Section D | vii |
| 2 Section B | ix | 5 Section E | viii |
| 3 Section C | vii | 6 Section F | iv |

Questions 7–10

Choose **TWO** letters, **A–E**.

Questions 7–8

What **TWO** points does the writer make about the colour purple and purple dye before William Perkin's creation?

- A It was only used to colour clothes.
- B It was originally produced for Roman emperors.
- C It was not easy to make.
- D There were many different techniques used to make it.
- E Some purple dyes were inferior to others.

Questions 9–10

What **TWO** things about William Perkin are true, according to the passage?

- A He taught Chemistry at a college in London.
- B He believed that quinine could be artificially produced.
- C He extracted the substance for his dye from a common plant.
- D He quickly realised the financial benefits of his new creation.
- E He set a new fashion trend for large skirts.

Questions 11–14

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

The purple range of colours plays an essential role in colour therapy, a form of 11 *medical practice*. Colour therapy is said to have originated many years ago in 12 *ancient India* and is still used by colour therapists such as Julia Kubler, who uses it to 13 *treat patients* with various health issues. According to Kubler, purple 14 *combines* aspects of two colours, making it both active and passive.

- ③ Check your answers carefully. For Question pairs 7–8 and 9–10, make sure you have chosen **TWO** answers for each pair. For Questions 11–14, make sure that you have used no more than the maximum number of words allowed, your spelling is correct, and your answers make grammatical sense.

Listening Section 2

- ① You are going to hear the first part of a radio programme about a book on colour. Underline the key ideas around each gap in the table below and decide what information you need to listen for.

Questions 1–6

Complete the table below.

Write **ONE WORD** for each answer.

Spectrum by Alex Mackenzie

Title of chapter	Theme	Features
'The hidden jungle'	How an animal's colour and shape can conceal it when it hides or 1	Has some outstanding 2
'A question of choice'	Why people's colour 3 differ from others.	A 4 test which involves readers grading things based on colour.
'It's all in the 5	How our brain perceives colour.	Describes some 6 that the reader can do.

- ② Now listen to the first part of the Listening passage and complete questions 1–6.

- ③ Read questions 7–10 below. Underline the key words or phrases in the questions and options.

Questions 7–10

Choose **TWO** letters, **A–E**.

Questions 7–8

According to the book, which of these **TWO** effects are red and orange believed to have on shoppers?

- A They calm you down.
- B They make you feel energetic.
- C They give you an appetite.
- D They make you feel enthusiastic.
- E They encourage you to spend more.

Questions 9–10

Which of these TWO colours do people with a limited amount of money respond to the best?

- A light blue
- B purple
- C orange
- D pink
- E red

4 Now listen to the next part of the Listening passage and answer questions 7–10.

Vocabulary

Phrasal verbs



1 Complete the passage with phrasal verbs from the box. You will need to change the form of some of the verbs. In one case, two options are possible.

bring up	carry out	come up with	end up
find out	go about	narrow down	point out
set up	start up	take up with	turn out
turn up	wake out		

Janice loved art, was a keen painter, and dreamt of becoming a famous artist. However, since she was 1 brought up in a house surrounded by lawyers (her father, mother and elder brother all worked for the family's legal business), it was generally expected that she would 2 end up doing the same thing when she finished university. Her father frequently 3 pointed out that working as a lawyer was one of the most satisfying jobs a person could have, and her mother 4 set up a special bank account where the money they gave her

each birthday could be put aside to see her through university and law school. Meanwhile, family meals were 5 laced up with long discussions about the different types of law she should practise, with her parents finally 6 narrowing down Janice's options to either corporate or family law.

Once at university, it didn't take her long to realise that law wasn't the profession for her, and after just one year at university she decided to leave education and 7 set up a gallery where she could sell her pictures. She asked her parents how she should 8 start up running a business like this, but disappointed with her choice, they refused to help. They just couldn't 9 work out why she had given up such a bright and promising future as a lawyer. Without their support, and without the right professional contacts, it was inevitable that her venture 10 turned out to be a complete disaster, and she watched in dismay as all the money she had saved gradually disappeared.

However, she was an optimistic person, and knew that something would 11 turn up. And one day it did. Through a friend, she 12 found out that a local advertising company was looking for an assistant in their corporate colour consultancy department. She applied for the job and was successful. Over the next few months, she 13 carried out her duties diligently, displaying a degree of dedication and initiative that really impressed her employers. Consequently, when the company started looking for ways to attract more customers, Janice was one of the people they consulted. She was able to 14 come up with lots of exciting and practical ideas, and as a result, customer numbers almost doubled within a few months.

Key vocabulary

2 Complete this passage with words from the box. In several cases, you will need to change the form of the word.

except house hypothesis improve notice
purpose scheme set strike way

It has been said that colour can influence people in such a 1 that it can alter their behaviour. This is an interesting 2, but how accurate is it? Recently, a prison in the USA 3 out to test it.

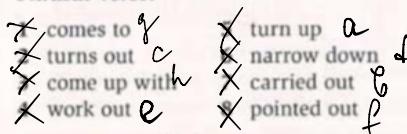
7 Work in pairs.

- 1 What things did you find difficult to learn as a child?
- 2 How important is it for children to learn things (e.g. numbers, words, activities, skills) as quickly as possible?
- 3 What can parents do to encourage children to reach their maximum potential?

Vocabulary

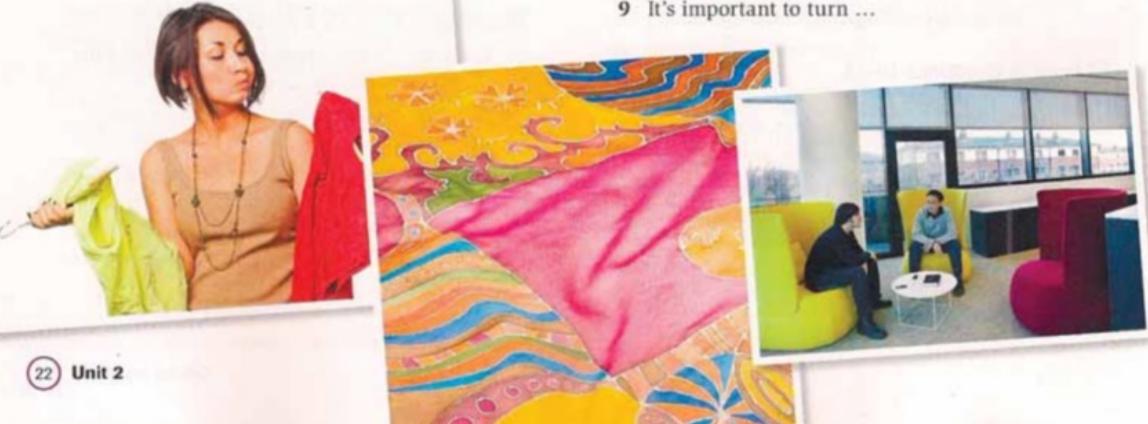
Phrasal verbs

1 Using phrasal verbs correctly will help you raise your band score in the exam. Scan the passage on pages 19–20 for these phrasal verbs. Then match them with their definition a–h from the *Cambridge International Dictionary of Phrasal Verbs*.



- a to appear or be found
- b to do/complete something, especially something important
- c to happen in a particular way or to have a particular result
- d to make something smaller and clearer by removing the things that are less important
- e to find the answer by thinking about it
- f to tell someone a fact that they did not already know
- g to reach a particular state or situation
- h to think of or suggest a plan, idea, solution or answer to a question

► page 115 *Phrasal verbs*



2 Complete these sentences by writing a phrasal verb from Exercise 1 in the correct form in each gap.

- 1 I have never succeeded in working out which colours suit me best.
- 2 The designer pointed out that the pattern on the fabric was unique.
- 3 Unfortunately, I couldn't come up with any useful suggestions.
- 4 James has managed to narrow his choice of subjects down to three.
- 5 We chose the furniture, but when it came to the colours, we were undecided.
- 6 I'm going to carry out a small study as part of my course work.
- 7 It turned out that many workers preferred the coloured chairs.
- 8 The meeting had to be cancelled because too few people turned up.

3 Work in pairs. Find five more phrasal verbs in the reading passage and decide what each of them means.

4 Which phrasal verbs in Exercises 1–3 are examples of:

- 1 verb + adverb particle?
- 2 verb + preposition?
- 3 verb + adverb particle + preposition?

5 Complete these sentences in any way you wish using phrasal verbs from Exercises 1 and 3.

- 1 When it comes ...
- 2 No one could come ...
- 3 If you work too hard, you will end ...
- 4 Their grandparents brought ...
- 5 The judges had to narrow ...
- 6 The instructor pointed ...
- 7 One individual cannot carry ...
- 8 The show turned ...
- 9 It's important to turn ...

October 12

Be ready for the tests:

- Test – bar chart or line graph description (appr. 20 minutes)
- Speaking test (Education, job, housework, socializing, colours). Ielts exam questions _ Part 1and Part 2. All questions were uploaded.
- *Topics → Colours* → listen to the audio files (part 1 questions about colours)
- Topics → Career trends → listen to the audio file *Top 10 jobs 4 computer science*. Topic for discussion “Best jobs for computer science students”
- *Writing_task 1* → study the uploaded files (age groups, related verbs, prepositions, palces and ranks). These files will improve bar charts and line graphs description.
- **Listening - Section 4**

Ways you socialize and communicate

IELTS Speaking Part 1:

How do you usually keep in touch with members of your family?
Do you prefer to speak to people by phone or by writing emails?
Do you ever write letters by hand? (Why / Why not?)
Is there anything you dislike about mobile phones?
Do you prefer relaxing at home or going out?
When you go out for an evening, what do you like to do?
Is there any kind of entertainment you do not like?
Do you like to stick to a routine? Or are you more impulsive and changeable?

IELTS Speaking Part 2:

Describe an important conversation you had.

You should say:

- when the conversation took place
- who you had the conversation with
- what the conversation was about

and explain why the conversation was important to you.

Describe a recent event party (festival, sports event, concert or musical event) that made you happy.

You should say:

- when and where it was
- who was involved
- what happened

and explain why it made you happy.

IELTS Speaking Part 3:

What are the main differences between spoken and written communication?
To what extent do you think the media influences how people communicate with each other?
Do you think there are differences in the way men and women communicate?
Do you think that people become better communicators as they get older?
Do you agree that education has a strong and positive effect on people's ability to communicate effectively?
What impact has the growth of technology on the way people communicate and how do you think this will develop in the future?
What is the most popular thing to do in the evenings in your country?
What do most people of all generations enjoy doing together?
Think about not only what your generation does when going out, but other generations.
(your parents generation)
Is there a definite generation difference between how people like to enjoy themselves?

Ways people socialize

socialize with friends / meet with friends for a chat or gossip

You are planning to have:

- an afternoon off
- a housewarming (party) – to celebrate moving to a new house (or flat)
- a formal party
- a launch party – to celebrate a publication of a new book or ...
- a family gathering – an event where a family comes together

go to a **friend's** to watch a film and have smth to eat

go to a dinner party at a **friend's house**

Make a short visit; visit somebody informally, usually without having arranged it:

- **drop in** on someone for a chat / to have a snack
- spend time **dropping in** on friends
- **call in** on somebody or somewhere
- **come over** to somebody's place / to my place / for dinner
- **Come and see us at our place.**

go clubbing / go and see a film

hang out with

go out for a meal

have a bite / have a small meal / have a snack / go out for a bite

prefer a fast food place to a restaurant

get a takeaway / grab a bite

to wine and dine – go out for dinner and drinks

go out for a quick drink / go out to have a drink

Staying in: be exhausted / stay in and do nothing / veg / chill / relax

Stroll

- go for a stroll around the park / along the river / down the street
- stroll up and down
- went out for a stroll
- *Out for a stroll – aren't you?*

1. Be ready for line graph description

2. IELTS_computer science → folder "Presentation"

During the second module you will deliver presentation (topics: sport, art, history)

- File "Color for presentation" _ New lexis will be included into the Lexical test in the middle of November.
- Watch two episodes: <https://www.youtube.com/watch?v=awaPthD09Dl> and Academic presentation language

3. Speaking

Topics → Describing people

4. Writing_Task 2

Student's book_ex 5 p 26; ex 3 p 29; Workbook _ ex 3, 4 p 17

5. Vocabulary

Student's book _ex 1 p 29

6. Reading

Student's book _Unit 3_ pp 32-34, questions 1-14

Find in the text and translate the following words and expressions:

embarrassment *увеселение*

fall behind *задерживаться*

be about *существовать*

flood the market *наводнение, погоня*

pre-eminence *выдающееся*

trail behind *нестись*

hinge *закреплять*

promote feelings of well-being *развивать чувство благополучия, счастья*

unravel *разгадывать, распутывать*

subsequent *следующий*

gauge (the effectiveness, improvement) *измерять*

falter *замедляться*

overwhelm *затопливать*

challenge assumption *вызывать подозрение, опровергать*

determine the outcome *определять исход*

conversely, ... *вместо*

yield results *показывать результаты*

devise strategy *разрабатывать стратегию*

outline the causes *излагать причины*

Group 195

Listening, tracks 05, 06

Test 2

LISTENING

SECTION 1 Questions 1–10

Complete the form below.

Write NO MORE THAN THREE WORDS AND/OR A NUMBER for each answer.

CAR INSURANCE	
Example Name:	Answer Patrick Jones
Address: Contact number: Occupation: Size of car engine:	1. 29 Benread 2. 780463 3. dentist 4. 1200cc
Type of car: Manufacturer: Model: Year:	5. Sable 6. Hewton 7. 3 8. 1997
Any insurance claims in the last five years? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	9. No
If yes, give brief details: Car was 10. stolen in 1999.	11. social 12. travel to work
Name(s) of other driver(s): Simon 6. brother Relationship to main driver: 7. brother-in-law	13. Red Flag
Start date: 31 January	14. 420
Recommended insurance arrangement	15. Annual cost: 10 \$

33

Test 2

SECTION 2 Questions 11–20

Questions 11 and 12

Label the map below.

Write NO MORE THAN TWO WORDS for each answer.



21:43 Пт 30 окт. AA drive.google.com complete_ielts_student'sbook.pdf - G... IELTS_computer_science - Google Диск Listening - Google Диск

Section 1, Questions 1–10

- 21 Bank Road
- (a) dentist
- Salt
- Northern Star
- stones
- Pepsi
- brother-in-law
- travelling(b) work
- Red Flag
- 450

Section 2, Questions 11–20

- City Bridge
- houses
- 6.30
- (former) garden
- (former) Restaurant
- views
- 7.50
- 7 screen
- every 20 minutes
- (former) Central Station

Страница 1 из 1

Write NO MORE THAN TWO WORDS AND/OR A NUMBER for each answer.

	Attraction	Further Information
STOP A: Main Booking Office: First boat: 8 a.m. Last boat: 13 14. 6:30 p.m.	Palace	* has lovely 14 15. formal gardens?
STOP B: 15.	Restaurant	* good 16. views of city centre
STOP C: 17.	Museum	* bookshop specialising in the 18. history of the local area
STOP D: 19.	Entertainment Complex	* 20. 7 screen cinema * bowling alley * video games arcade

Questions 19 and 20

Write NO MORE THAN THREE WORDS AND/OR A NUMBER for each answer.

19. How often do the Top Bus Company tours run? 8:30 20 min
every 20 minutes
20. Where can you catch a Number One Sightseeing Tour from? Central Station

Recommendations for Making Presentations

Introduction

1. Welcome your audience

- *Good morning, ladies and gentlemen.*
- *Good afternoon, everybody.*
- *On behalf of myself and Focus Advertising, I'd like to welcome you. My name's Sven Larsen.*
- *Good morning. My name is Sarah Benson and, as you know, I work as a consultant for the LX Consulting Group.*

2. Introduce your subject (stating the purpose)

- *In my presentation I'll be proposing ...*
- *In my presentation I'm going to explain ...*
- *The subject/topic of this presentation is ...*
- *The purpose of this presentation is to ...*
- *I'd like to give you some information about*
- *My presentation today is about...*
- *Today I'm going to....*

If you want to create more impact, you can change the normal word order and begin your statement with the word "What" e.g.

- *What I'd like to do this morning is to present the results of our study.*
- *What I'm going to explain this afternoon are the technical problems...*
- *What I'll be proposing in my presentation are two new techniques*
- *What I'll be analyzing in this presentation is ...*

3. Outline your structure

Give information about the main points to be developed during the presentation, and the order in which you'll develop this. This is called **signposting**.

- *I'll be developing three main points.*
- *I'll be looking at three points.*
- *I've divided my presentation into three parts.*
- *There are (three) main areas to be considered.*

- *First, I'll give you some background information about, ...*
- *Second. I'll go on to examine,...*
- *And I'll finish with...*

- *Firstly, I'll present an overview of...*
- *Secondly, I'd like to...*
- *Lastly. I'll explain our recommendations ...*

- *My first point will be ...*
- *Then I'll give you some data about...*
- *Finally I'll spend some time talking about...*



4. Use questions

- We must ask ourselves these questions
- There are three questions I'd like to ask/answer.
- There are several questions we need to think about.
- Let me answer each of these questions one by one.
- I'll answer these questions in turn.

5. Talk about sources

- This essay (presentation) draws its data from ... (uses information from)
- This essay (presentation, present study) draws primarily on ... (uses information mainly from)
- However, I only directly cite those works (articles) which are particularly relevant in the present study (in my presentation).
- I'll make reference to (refer to – less formal) this source throughout the presentation.
- Newspapers (articles, websites) proved to be a valuable resource for the study of ...
- Newspapers (articles, websites) are good primary source for ...
- I use data from (websites, articles, journals).

Main Body

1. Involve the audience

- Present facts in a way that makes it easy for the audience to relate to them. e.g. - *One person in four* may be easier to relate to than '*25 per cent of the population*'
- Use words like your, our, us to make your audience feel involved in your presentation. (for general public): *As you all know...; As I think you know, ...*
- Ask the audience questions to involve them in the presentation, (when you have a small audience)
- With larger audiences use rhetorical questions, which encourage the audience to think, but which you answer yourself. They can build links between the various points in your presentation.
 - *What's the explanation for this?*
 - *What can we do about it?*
 - *How can we explain this?*
 - *How will this affect us?*
 - *What are the implications for the company?*

2. Linking with a previous point

- *As I mentioned earlier...*
- *As I said at the beginning / in my introduction...*

3. Changing topic

- *This brings me to my next point... / My next point is...*
- *I'd now like to change direction and talk about ...*
- *Now we'll move on to the next question / issue. / I'd like to move to the next point.*
- *I'd like now to turn to...*

4. Repeat your point using different words

Example:

Most complaints from customers focus on waiting times and lack of information. In short (in other words; to put it another way; that is to say), we need to improve our customer service.

5. Introducing slides

- You can see from this slide that ...
- Take a look at this graph ...
- I'd like to draw your attention to ...
- Let's look at the figures on this slide more closely.
- Looking at this graph it's interesting to note that ...
- I'll explain / clarify / specify how I worked out this figures. Let me find the relevant slide. I'll go over that part again.
- The projector doesn't seem to be working. I'll adjust it.

Conclusion

1. Summarising

- So, to summarise... or So, to sum up (the main points briefly)....
- In conclusion...
- I would like to conclude by (saying) ...

2. Inviting questions

- Are there any questions?
- Do you have any questions?
- Can I answer any questions?
- Now I'll try to answer any question you may have.
- I'd be happy to answer your questions.
- If you have any questions, I'd be pleased to answer them.

6. Closing formalities

- I would welcome any comments/suggestions.
- Thank you for your attention.

7. Further reading

These journals have websites providing up-to-date information. I've produced a list of addresses. If anyone wants a copy, I'll leave them here at the front.

8. Handouts

A handout is a paper containing a summary of information or topics which will be dealt with in a lecture or talk.

- I'm going to hand out copies.
- Please, take one and pass them around.
- Did everyone get a copy?
- I'll be covering a lot of topics in my presentation and will be giving you some figures and statistics. However, don't worry about taking notes. I have a handout with the main points of my presentation, which I'll give you at the end.
- You can have all copies of the statistics and tables later.

Relationship

1. If you use a character adjective to describe someone in the exam, you should expand on it or explain it: *He is not very reliable, if I e-mail him, he won't respond.*

2. Include at least one negative point for each person.

She is over-sensitive, often getting offended for seemingly no reason.

She may be a bit stingy. When we go out for a meal, she never offers to pay even though they're much better off than us.

If you say sth negative about sb, it sometimes can sound rude or too direct. You must "soften" negative comment for this reason with

- **can be a bit:** *She can be a bit impatient.*
- **not very + positive adj:** *He is not very reliable.*

Match phrases with their definitions.

get on with sb	argue and stop being friendly
look up to sb	have a good relationship
be in touch with sb	gradually have a less close relationship
fall out with sb	be in communication with sb
grow apart from sb	know sb well
take after sb	have many childhood and adolescent experiences in common with sb
grow up together	respect sb
be close to sb	resemble sb in appearance or personality

Here are some ideas.

I'm going to talk about my father because he has been a major influence in my life.

My father was always a good role model for me as I was growing up. He's hard-working, patient and understanding; he's also got a good sense of humour and seems to get on well with everybody.

Hopefully I've inherited some of these traits.

I admire my father because I think he brought me and my brothers/sisters up well; he was quite strict but always fair, and he has always been someone I can turn to for advice. I think my father set a good example by working hard and having a positive outlook on life. I remember that he used to leave for work early and come home quite late, but he always made time for me and my brothers/sisters.

Useful phrases

We've always get on and we'll hardly ever fall out.

Unfortunately, we grew apart slowly but surely, and by the time we went to uni we weren't in touch any more.

Reading Section 3

Exam information

- Reading Section 3 is generally more challenging than the other two sections.
- There are 14, rather than 13 questions.

- ① **Work in small groups.** You are going to read an article about the 'placebo effect'. Before you read, discuss these questions.
 - 1 Why do pharmaceutical companies have to test the drugs they are developing?
 - 2 How do you think they do this?
- ② **Look at the illustration in the article and read the title and subheading.** What does the 'placebo effect' refer to? What do you expect to read about?
- ③ Now skim the article and decide whether your answers to Exercise 2 were correct.
- ④ **Underline words** in Questions 1–5 below which will help you scan to find the relevant parts of the passage. Then read those parts of the passage and answer the questions.

Questions 1–5

Do the following statements agree with the claims of the writer?

Write

- YES if the statement agrees with the claims of the writer
NO if the statement contradicts the claims of the writer
NOT GIVEN if it is impossible to say what the writer thinks about this

- 1 Merck's experience with MK-869 was unique. *No*
- 2 These days, a small number of unsuccessful test results can ruin a well-established drugs company. *Yes*
- 3 Some medical conditions are more easily treated by a placebo than others. *No*
- 4 It was to be expected that the third group in Kaptchuk's trial would do better than the other two groups. *Yes*
- 5 Kaptchuk's research highlights the fact that combined drug and placebo treatments should be avoided. *No*

Exam advice Yes / No / Not Given

- You should use the same approach for *True / False / Not Given* and *Yes / No / Not Given* questions (see page 12). However, *True / False / Not Given* questions refer to information stated in the article, whereas these questions refer to the writer's opinions or claims.
- Remember that 'NO' statements say the opposite of what is stated in the passage, while the idea in 'NOT GIVEN' statements is not mentioned at all.



Examining the placebo effect

BY STEVE SILBERMAN

The fact that taking a fake drug can powerfully improve some people's health—the so-called placebo effect—was long considered an embarrassment to the serious practice of pharmacology, but now things have changed.

Several years ago, Merck, a global pharmaceutical company, was falling behind its rivals in sales. To make matters worse, patents on five blockbuster drugs were about to expire, which would allow cheaper generic products to flood the market. In interviews with the press, Edward Scolnick, Merck's Research Director, presented his plan to restore the firm to pre-eminence. Key to his strategy was expanding the company's reach into the anti-depressant market, where Merck had trailed behind, while competitors like Pfizer and GlaxoSmithKline had created some of the best-selling drugs in the world. "To remain dominant in the future," he told one media company, "we need to dominate the central nervous system."