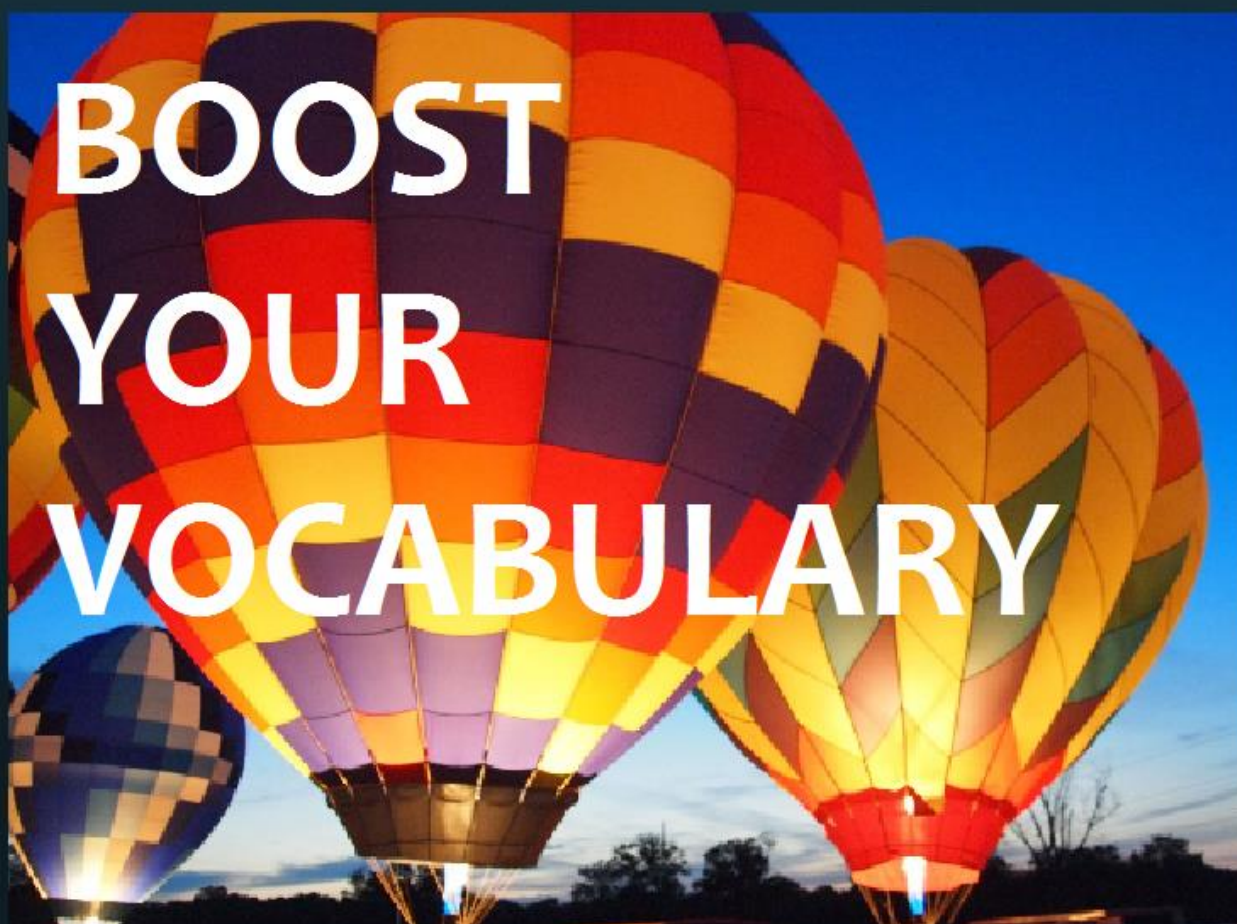


■ ■ ■  IELTS family
Dinh Thang - Duong Nguyen



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CAMBRIDGE IELTS

12

LỜI GIỚI THIỆU

Chào các bạn,

Các bạn đang cầm trên tay cuốn “Boost your vocabulary” được biên soạn bởi mình và bạn [Dương Nguyễn](#). Cuốn sách được viết nhằm mục đích giúp các bạn đang muốn cải thiện vốn từ vựng cho phần thi Reading trong IELTS. Sách được viết dựa trên nền tảng bộ Cambridge IELTS của Nhà xuất bản Đại học Cambridge – Anh Quốc.

Từ lúc mình lên ý tưởng cho cuốn sách này đến khi cùng bạn Dương Nguyễn bắt đầu thực hiện, mình đã mất tương đối nhiều thời gian để nghiên cứu cách thức đưa nội dung sao cho khoa học và dễ dùng nhất với các bạn đọc. Tuy vậy, cuốn sách không khỏi có những hạn chế nhất định. Mọi góp ý để cải thiện nội dung cuốn sách mọi người xin gửi về email thangworm@gmail.com

Trân trọng cảm ơn,



dinhthangielts

NHÓM THỰC HIỆN

Đinh Thắng



Hiện tại là giáo viên dạy IELTS tại Hà Nội với các lớp học quy mô nhỏ (dưới 10 người) từ cuối năm 2012. Chứng chỉ ngành ngôn ngữ Anh, đại học Brighton, Anh Quốc, 2016. Từng làm việc tại tổ chức giáo dục quốc tế Language Link Việt Nam (2011-2012)

Dương Nguyễn



Cựu sinh viên K55 Đại học Kinh tế Quốc Dân Hà Nội.

03 LÝ DO TẠI SAO NÊN HỌC TỪ VỰNG THEO CUỐN SÁCH NÀY

1. Không còn mất nhiều thời gian cho việc tra từ

Các từ học thuật (academic words) trong sách đều có kèm giải thích hoặc từ đồng nghĩa. Bạn tiết kiệm được đáng kể thời gian gõ từng từ vào từ điển và tra. Chắc chắn những bạn thuộc dạng “không được chăm chỉ lắm trong việc tra từ vựng” sẽ thích điều này.

2. Tập trung bộ nhớ vào các từ quan trọng

Mặc dù cuốn sách không tra hết các từ giúp bạn nhưng sách đã chọn ra các từ quan trọng và phổ biến nhất giúp bạn. Như vậy, bạn có thể tập trung bộ nhớ vào các từ này, thay vì phải mất công nhớ các từ không quan trọng. Bạn nào đạt Reading từ 7.0 trở lên đều sẽ thấy rất nhiều trong số các từ này thuộc loại hết sức quen thuộc

3. Học một từ nhớ nhiều từ

Rất nhiều từ được trình bày theo synonym (từ đồng nghĩa), giúp các bạn có thể xem lại và học thêm các từ có nghĩa tương đương hoặc giống như từ gốc. Có thể nói, đây là phương pháp học hết sức hiệu quả vì khi học một từ như impact, bạn có thể nhớ lại hoặc học thêm một loạt các từ nghĩa tương đương như significant, vital, imperative, chief, key. Nói theo cách khác thì nếu khả năng ghi nhớ của bạn tốt thì cuốn sách này giúp bạn đẩy số lượng từ vựng lên một cách đáng kể.

HƯỚNG DẪN SỬ DỤNG SÁCH

ĐỐI TƯỢNG SỬ DỤNG SÁCH

Nhìn chung các bạn cần có mức độ từ vựng tương đương 5.5 trở lên (theo thang điểm 9 của IELTS), nếu không có thể sẽ gặp nhiều khó khăn trong việc sử dụng sách này.

CÁC BƯỚC SỬ DỤNG

Bước 1: Bạn in cuốn sách này ra. Nên in bìa màu để có thêm động lực học. Cuốn sách được thiết kế cho việc đọc trực tiếp, không phải cho việc đọc online nên bạn nào đọc online sẽ có thể thấy khá bất tiện khi tra cứu, đối chiếu từ vựng

Bước 2: Tìm mua cuốn Cambridge IELTS (6 cuốn mới nhất từ 6-12) của Nhà xuất bản Cambridge để làm. Hãy cẩn thận đừng mua nhầm sách lậu. Sách của nhà xuất bản Cambridge được tái bản tại Việt Nam thường có bìa và giấy dày, chữ rất rõ nét.

Bước 3: Làm một bài test hoặc passage bất kỳ trong bộ sách trên. Ví dụ passage 1, test 1 của Cambridge IELTS 12.

Bước 4: Đối chiếu với cuốn sách này, bạn sẽ lọc ra các từ vựng quan trọng cần học.

Ví dụ passage 1, test 1 của Cambridge IELTS 12, bài về CORK: Bạn sẽ thấy

4.1 Cột bên trái là bản text gốc, trong đó gạch chân các từ vựng học thuật CƠ BẢN trong list 570 academic word mà nhiều bạn chắc đã từng nghe nói đến.

4.2 Cột bên phải chứa các từ vựng học thuật (academic words) theo kèm định nghĩa (definition) hoặc từ đồng nghĩa (synonym)

Trong đó các từ đóng vai trò quan trọng trong việc giúp người đọc hiểu nội dung của text (important words) được giải thích. Các từ này có thể nằm trong hoặc không nằm trong list 570 từ phía trên.

Nguyên nhân vì

- Khá nhiều từ trong list 570 từ vựng thuộc loại rất phổ biến (VD: individual, structure, technology, energy, v.v...) nên các từ này tất nhiên không được giải thích ở cột bên phải.

- Khổ giấy có hạn, rất khó để trình bày hết các từ. Giả sử trình bày hết các từ thì trông cũng rất rối. Ở đây cuốn sách đặc biệt phục vụ cho các bạn đang ở tầm 6.5-7.0 về từ vựng.

** Tài liệu này nên được in ra để thuận tiện cho việc học*

*** Lúc học, nên dùng kèm bút highlight/bút đỏ/bút chì để đánh dấu từ, như vậy sẽ đỡ bận mắt lúc đọc và tra cứu.*

**** Tránh mua/bán tài liệu này dưới mọi hình thức.*

Test 1

READING PASSAGE 1

Cork

Cork - the thick bark of the cork oak tree (*Quercus suber*) - is a **remarkable** material. It is **tough**, **elastic**, **buoyant**, and **fire-resistant**, and suitable for a wide range of **purposes**. It has also been used for millennia: the ancient Egyptians sealed then sarcophagi (stone coffins) with cork, while the ancient Greeks and Romans used it for anything from beehives to sandals.

And the cork oak itself is an **extraordinary** tree. Its bark grows up to 20 cm in thickness, **insulating** the tree like a coat wrapped around the trunk and branches and keeping the inside at a constant 20°C all year round. Developed most probably as a defence against forest fires, the bark of the cork oak has a **particular** cellular structure - with about 40 million cells per cubic centimetre - that technology has never succeeded in **replicating**. The cells are filled with air, which is why cork is so buoyant. It also has an elasticity that means you can squash it and watch it spring back to its original size and shape when you release the **pressure**.

Cork oaks grow in a number of Mediterranean countries, including Portugal, Spain, Italy, Greece and Morocco. They **flourish** in warm, sunny climates where there is a minimum of 400 millimetres of rain per year, and no more than 800 millimetres. Like grape vines, the trees **thrive** in poor **soil**, putting down deep root in search of **moisture** and **nutrients**. Southern Portugal's Alentejo region meets all of these requirements, which explains why, by the early 20th century, this region had become the world's largest producer of cork, and why today it accounts for roughly half of all cork production around the world.

Most cork forests are family-owned. Many of these family businesses, and indeed many of the trees

Remarkable=extraordinary, outstanding, significant, incredible...

Tough= strong.

Elastic= stretchy, flexible...

Buoyant= able to float.

Fire-resistant= unaffected by fire.

Extraordinary=remarkable, outstanding, significant, incredible...

Insulate= to cover or protect something with a material that stops electricity, sound, heat etc from getting in or out

Particular= unique.

Replicate= duplicate, copy...

Pressure= stress.

Flourish= grow, thrive...

Thrive= flourish...

Soil= the top layer of the earth in which plants grow.

Moisture=wetness, dampness...

Nutrient= a chemical or food that provides what is needed for plants or animals to live and grow

themselves, are around 200 years old. Cork production is, above all, an exercise in **patience**. From the planting of a cork sapling to the first harvest takes 25 years, and a gap of approximately a **decade** must separate harvests from an **individual** tree. And for top-quality cork, it's necessary to wait a further 15 or 20 years. You even have to wait for the right kind of summer's day to harvest cork. If the bark is **stripped** on a day when it's too cold - or when the air is damp - the tree will be damaged.

Cork harvesting is a very **specialised** profession. No **mechanical** means of stripping cork bark has been invented, so the **job** is done by **teams** of highly skilled workers. First, they make vertical cuts down the bark using small sharp axes, then lever it away in pieces as large as they can manage. The most skilful cork-strippers prise away a semi-circular husk that runs the length of the trunk from just above ground level to the first branches. It is then dried on the ground for about four months, before being taken to factories, where it is **boiled** to kill any insects that might remain in the cork. Over 60% of cork then goes on to be made into traditional bottle stoppers, with most of the remainder being used in the construction trade, Corkboard and cork tiles are ideal for **thermal** and **acoustic** insulation, while granules of cork are used in the **manufacture** of concrete.

Recent years have seen the end of the **virtual monopoly** of cork as the material for bottle stoppers, due to concerns about the effect it may have on the contents of the bottle. This is caused by a **chemical compound** called 2,4,6-trichloroanisole (TCA), which forms through the interaction of plant phenols, chlorine and mould. The tiniest concentrations - as little as three or four parts to a trillion - can **spoil** the taste of the product contained in the bottle. The result has been a gradual yet steady move first towards plastic stoppers and, more recently, to aluminium screw caps. These **substitutes** are cheaper to manufacture and, in the case of screw caps, more convenient for the user.

The **classic** cork stopper does have several advantages, however. Firstly, its traditional **image** is more in keeping with that of the type of high quality goods with which it has long been associated. Secondly - and very importantly - cork is a **sustainable** product that can be recycled without difficulty. Moreover, cork forests are a **resource** which

Patience= the ability to continue waiting or doing something for a long time without becoming angry or anxious.

Strip= to remove something that is covering the surface of something else

Specialised= trained, designed, or developed for a particular purpose, type of work, place etc

Mechanical= motorized.

Boil= to wash something, using boiling water.

Thermal= relating to or caused by heat

Acoustic= relating to sound and the way people hear things

Manufacture= production.

Monopoly= if a company or government has a monopoly of a business or political activity, it has complete control of it so that other organizations cannot compete with it

Spoil= ruin, destroy...

Substitute= something new or different that can be used instead of something else.

Sustainable= able to continue without causing damage to the environment.

support local **biodiversity**, and **prevent desertification** in the regions where they are planted. So, given the current concerns about environmental issues, the future of this ancient material once again looks promising.

Biodiversity= the variety of plants and animals in a particular place.

Prevent= stop.

Desertification= the process by which useful land, especially farmland, changes into desert.

READING PASSAGE 2

Collecting as a hobby

Collecting must be one of the most varied of human activities, and it's one that many of us psychologists find **fascinating**.

Many forms of collecting have been **dignified** with a technical name: an archtophilist collects teddy bears, a philatelist collects postage stamps, and a deltiologist collects **postcards**. A massing hundreds or even thousands of postcards, chocolate wrappers or whatever, takes time, energy and money that could surely to much more **productive** use. And yet there are millions of collectors around the world. Why do they do it?

There are the people who collect because they want to make money - this could be called an instrumental reason for collecting; that is, collecting as a means to an end. They'll look for, say, **antiques** that they can buy cheaply and expect to be able to sell at a **profit**. But there may well be a **psychological element**, too - buying cheap and selling dear can give the collector a sense of **triumph**. And as selling online is so easy, more and more people are joining in.

Many collectors collect to develop their social life, attending meetings of a group of collectors and **exchanging** information on items. This is a variant on joining a bridge club or a gym, and similarly brings

Fascinating= charming, attractive, interesting...

Dignify= distinguish.

Productive= practical, useful, helpful, valuable.

Antique: a piece of furniture, jewellery etc that was made a very long time ago and is therefore valuable.

Profit=income, earnings, turnover, revenue.

Psychological=mental.

Element= factor.

Triumph=Victory, succeed, joy, satisfaction.

Exchange= swap, trade.

them into **contact** with like-minded people.

Another **motive** for collecting is the **desire** to find something special, or a particular example of the collected item, such as a rare early recording by a particular singer.

Some may spend their whole lives in a hunt for this. Psychologically, this can give a purpose to a life that otherwise feels aimless. There is a danger, though, that if the **individual** is ever lucky enough to find what they're looking for, rather than **celebrating** their success, they may feel **empty**, now that the **goal** that drove them on has gone.

If you think about collecting postage stamps another **potential** reason for it - Or, perhaps, a result of collecting is its educational value. Stamp collecting opens a window to other countries, and to the plants, animals, or famous people shown on their stamps. Similarly, in the 19th century, many collectors amassed **fossils**, animals and plants from around the globe, and their collections provided a vast amount of information about the natural world. Without those collections, our understanding would be greatly **inferior** to what it is.

In the past - and nowadays, too, though to a lesser extent - a popular form of collecting, particularly among boys and men, was trainspotting. This might **involve** trying to see every **locomotive** of a particular type, using **published data** that **identifies** each one, and ticking off each engine as it is seen. Trainspotters exchange information, these days often by mobile phone, so they can work out where to go to, to see a particular engine. As a by-product, many **practitioners** of the hobby become very **knowledgeable** about **railway operations**, or the **technical** specifications of different engine types.

Similarly, people who collect **dolls** may go beyond simply **enlarging** their collection, and develop an interest in the way that dolls are made, or the materials that are used. These have changed over the centuries from the wood that was **standard** in 16th century Europe, through the **wax** and **porcelain** of later centuries, to the plastics of today's dolls. Or collectors might be inspired to study how dolls reflect **notions** of what children like, or ought to like.

Not all collectors are interested in learning from their

Desire= wish, need, want.

Aimless= meaningless...

Empty=meaningless, purposeless.

Fossil= an animal or plant that lived many thousands of years ago and that has been preserved, or the shape of one of these animals or plants that has been preserved in rock.

Inferior=poorer, lower.

Publish= announce, make public.

Identify= recognize, distinguish, detect.

Knowledgeable= well-informed, experienced, educated.

Railway= a system of tracks along which trains run, or a system of trains.

Operation= process, procedure.

Doll= a child's toy that looks like a small person or baby.

Enlarge= increase, expand, extend...

Standard= norm, average...

Wax= a solid substance made of fat or oil and used to make candles, polish etc

Porcelain= a hard shiny white substance that is used for making expensive plates, cups etc.

hobby, though, so what we might call a psychological reason for collecting is the need for a sense of control, perhaps as a way of dealing with insecurity. Stamp collectors, for instance, arrange their stamps in albums, usually very **neatly**, organising their collection according to certain commonplace principles-perhaps by country in alphabetical order, or grouping stamps by what they depict -people, birds, maps, and so on.

One reason, **conscious** or not, for what someone chooses to collect is to show the collector's **individualism**. Someone who decides to collect something as unexpected as dog collars, for instance, may be **conveying** their belief that they must be interesting themselves. And believe it or not, there is at least one dog collar museum in **existence**, and it grew out of a personal collection.

Of course, all hobbies give **pleasure**, but the common **factor** in collecting is usually **passion**: pleasure is putting it far too mildly. More than most other hobbies, collecting can be totally **engrossing**, and can give a strong sense of personal **fulfillment**. To non-collectors it may appear an **eccentric**, if harmless, way of spending time, but potentially, collecting has a lot going for it.

Neatly= tidily, carefully.

Conscious= intentional, deliberate.

Individualism= the belief that the rights and freedom of individual people are the most important rights in a society.

Existence= Reality.

Mildly= slightly, a little...

Passion= a very strong liking for something.

Engross= hold your attention.

Fulfillment= satisfaction.

Eccentric= unusual, strange, weird...

READING PASSAGE 3

What's the purpose of gaining knowledge?

A
'I would **found** an **institution** where any person can find instruction in any subject' That was the founders **motto** for Cornell University, and it seems an apt characterization of the different university, also in the USA, where I currently teach philosophy. A student can prepare for a career in resort management, engineering, interior design, accounting, music, law **enforcement**, you name it. But what would the

Institution= a large organization that has a particular kind of work or purpose.

Motto= Slogan, saying...

founders of these two institutions have thought of a course called **Arson** for **Profit**? I kid you not: we have it on the books. Any undergraduates who have met the academic requirements can sign up for the course in our program in 'fire science'.

B

Naturally, the course is intended for **prospective** arson investigators, who can learn all the tricks of the trade for detecting whether a fire was deliberately set, discovering who did it, and establishing a chain of evidence for effective **prosecution** in a court of law. But wouldn't this also be the perfect course for prospective arsonists to sign up for? My point is not to **criticize** academic programs in fire science: they are highly welcome as part of the increasing professionalization of this and many other **occupations**. However, it's not unknown for a firefighter to torch a building. This example suggests how dishonest and **illegal** behavior, with the help of higher education, can creep into every aspect of public and business life.

C

I realized this anew when I was invited to speak before a class in marketing, which is another of our degree programs. The regular instructor is a colleague who **appreciates** the kind of **ethical** perspective I can bring as a philosopher. There are endless ways I could have approached this assignment, but I took my **cue** from the title of the course: '**Principles** of Marketing'. It made me think to ask the students, 'Is marketing principled?' After all, a subject matter can have principles in the sense of being **codified**, having rules, as with football or chess, without being principled in the sense of being ethical. Many of the students immediately **assumed** that the answer to my question about marketing principles was **obvious**: no. Just look at the ways in which everything under the sun has been marketed; obviously it need not be done in a principled (=ethical) fashion.

D

Is that obvious? I made the suggestion, which may **sound downright** crazy in light of the evidence, that perhaps marketing is by definition principled. My inspiration for this judgement is the philosopher Immanuel Kant, who argued that any body of knowledge consists of an end (or purpose) and a means.

Arson= fire-starting, fire-raising...

Profit= income, earnings, revenue...

Prospective= likely, potential...

Prosecution= when someone is judged for a crime in a court of law.

Criticize= to express your disapproval of someone or something, or to talk about their faults.

Occupation= Job, work...

Illegal= against the law.

Appreciate= be grateful for, be thankful for, be glad about, be pleased about, value...

Ethical= Moral, principled...

Cue= signal.

Principle= rule, law...

Codify= to arrange laws, principles, facts etc in a system.

Assume= suppose, believe, think...

Obvious= clear, apparent...

Sound= seem.

Downright= absolutely, totally, extremely...

E

Let us apply both the terms 'means' and 'end' to marketing. The students have **signed up** for a course in order to learn how to market effectively. But to what end? There seem to be two main attitudes toward that question. One is that the answer is obvious: the **purpose** of marketing is to sell things and to make money. The other attitude is that the purpose of marketing is **irrelevant**: Each person comes to the program and course with his or her own plans, and these need not even concern the acquisition of marketing **expertise** as such. My **proposal**, which I believe would also be Kant's, is that neither of these attitudes captures the significance of the end to the means for marketing. A field of knowledge or a professional endeavor is defined by both the means and the end; hence both deserve **scrutiny**. Students need to study both how to achieve X, and also what X is.

F

It is at this point that 'Arson for Profit' becomes **supremely** relevant. That course is **presumably** all about means: how to detect and **prosecute** criminal activity. It is therefore assumed that the end is good in an ethical sense. When I ask fire science students to **articulate** the end, or purpose, of their field, they eventually **generalize** to something like, 'The safety and welfare of society,' which seems right. As we have seen, someone could use the very same knowledge of means to achieve a much less noble end, such as personal profit via destructive, dangerous, **reckless** activity. But we would not call that firefighting. We have a separate word for it: arson. Similarly, if you employed the 'principles of marketing' in an unprincipled way, you would not be doing marketing. We have another term for it: **fraud**. Kant gives the example of a doctor and a poisoner, who use the identical knowledge to achieve their divergent ends. We would say that one is practicing medicine, the other, murder.

Sign up= join, enroll...

Irrelevant= unrelated, inappropriate...

Expertise= knowledge, proficiency...

Proposal= suggestion.

Endeavor= effort, try...

Scrutiny= careful and thorough examination of someone or something.

Supremely= extremely, completely, totally....

Presumably= seemingly, apparently...

Prosecute= accuse= to charge someone with a crime and try to show that they are guilty of it in a court of law.

Generalize= simplify, take a broad view...

Articulate= speak about.

Reckless= not caring or worrying about the possible bad or dangerous results of your actions.

Fraud= the crime of deceiving people in order to gain something such as money or goods.

Test 2

READING PASSAGE 1

The risks agriculture faces in developing countries

Synthesis of an online debate

A

Two things **distinguish** food production from all other productive activities: first, every single person needs food each day and has a right to it; and second, it is hugely **dependent** on nature. These two unique aspects, one political, the other natural, make food production highly **vulnerable** and different from any other business. At the same time, cultural values are highly **entrenched** in food and agricultural systems worldwide.

B

Farmers everywhere face major risks; including extreme weather, long-term climate change, and price **volatility** in input and product markets. However, smallholder farmers in developing countries must in addition deal with **adverse** environments, both natural, in terms of soil quality, rainfall, etc. and human, in terms of **infrastructure**, financial systems, markets, knowledge and technology. Counter-intuitively, hunger is **prevalent** among many smallholder farmers in the developing world.

C

Participants in the online debate argued that our biggest challenge is to **address** the underlying causes of the agricultural system's **inability** to ensure sufficient food for all, and they **identified** as drivers of this problem our dependency on fossil fuels and **unsupportive** government policies.

D

On the question of **mitigating** the risks farmers face, most essayists called for greater state **intervention**. In his essay, Kanayo F. Nwanze, President of the International **Fund** for Agricultural Development, argued that governments can **significantly** reduce

Synthesis= mixture, combination...

Distinguish= differentiate...

Dependent= reliant.

Vulnerable= a place, thing, or idea that is vulnerable is easy to attack or criticize.

Entrench= Establish.

Volatility= unpredictability. Instability.

Adverse= unfavorable, poor, bad...

Infrastructure= the basic systems and structures that a country or organization needs in order to work properly, for example roads, railways, banks etc.

Prevalent=common.

Participant= member, partaker...

Address= tackle, deal with...

Inability= powerlessness, failure, lack of ability...

Identify= detect, discover, find, recognize...

Unsupportive= not ready to give a hand, uncooperative...

Mitigate= lessen, reduce, alleviate...

Intervention= involvement.

Fund= sponsor, subsidise, back

Significantly= much, a lot...

risks for farmers by providing basic services like roads to get produce more efficiently to markets, or water and food **storage facilities** to reduce losses. Sophia Murphy, **senior** advisor to the Institute for Agriculture and Trade Policy, suggested that the **procurement** and holding of stocks by governments can also help mitigate wild swings in food prices by **alleviating** uncertainties about market supply.

E

Shenggen Fan, Director General of the International Food Policy Research Institute, held up social safety nets and public **welfare** programmes in Ethiopia, Brazil and Mexico as valuable ways to **address poverty** among farming families and reduce their **vulnerability** to agriculture shocks. However, some commentators responded that cash **transfers** to poor families do not necessarily translate into increased food security, as these programmes do not always strengthen food production or raise incomes.

Regarding state **subsidies** for agriculture, Rokeya Kabir, Executive Director of Bangladesh Nari Progati Sangha, commented in her essay that these 'have not **compensated** for the stranglehold exercised by private traders. In fact, studies show that sixty **percent** of beneficiaries of subsidies are not poor, but rich landowners and non-farmer traders.

F

Nwanze, Murphy and Fan argued that private risk management tools, like private insurance, commodity futures markets, and rural **finance** can help small-scale producers mitigate risk and allow for investment in improvements. Kabir warned that financial support **schemes** often encourage the **adoption** of high-input agricultural practices, which in the **medium** term may raise production costs beyond the value of their harvests.

Murphy noted that when futures markets become **excessively** financialised they can **contribute** to short-term price volatility, which increases farmers' food insecurity. Many participants and commentators emphasised that greater **transparency** in markets is needed to mitigate the **impact** of volatility, and make **evident** whether **adequate** stocks and supplies are available. Others contended that agribusiness companies should be held responsible for paying for negative side effects.

Storage= the process of keeping or putting something in a special place while it is not being used.

Facilities= rooms, equipment, or services that are provided for a particular purpose.

Senior= higher-ranking.

Procurement= the act of ordering and buying the equipment, supplies, services etc needed by a company or other organization.

Alleviate= lessen.

Poverty= the situation or experience of being poor.

Subsidy= financial support, financial assistance, grant, aid

Compensate= give back, pay compensation...

Scheme= plan.

Adoption= the act of starting to use a particular plan, method, way of speaking etc.

Excessively= extremely, greatly...

Transparency= clearness, simplicity...

Adequate= Sufficient, enough...

G

Many essayists mentioned climate change and its **consequences** for small-scale agriculture. Fan explained that in addition to reducing crop yields, climate change increases the **magnitude** and the **frequency** of extreme weather events, which increase smallholder vulnerability. The growing unpredictability of weather patterns increases farmers' difficulty in managing weather-related risks.

According to this author, one **solution** would be to develop crop varieties that are more **resilient** to new climate **trends** and extreme weather patterns. Accordingly, Pat Mooney, co-founder and **executive** director of the ETC Group, suggested that 'if we are to **survive** climate change, we must adopt **policies** that let **peasants diversify** the plant and animal species and varieties/breeds that make up our menus.

H

Some participating authors and commentators argued in favour of community- based and autonomous risk management **strategies** through collective action groups, co-operatives or producers' groups. Such groups **enhance** market opportunities for small-scale producers, reduce marketing costs and **synchronise** buying and selling with seasonal price conditions. According to Murphy, 'collective action offers an important way for farmers to strengthen their political and economic **bargaining** power, and to reduce their business risks. One **commentator**, Giel Ton, warned that collective action does not come as a free good. It takes time, effort and money to organise, build trust and to experiment. Others, like Marcel Vernooij and Marcel Beukeboom, suggested that in order to 'apply what we already know', all stakeholders, including business, government, scientists and **civil** society, must work together, starting at the beginning of the value chain.

I

Some participants explained that market price volatility is often worsened by the presence of intermediary purchasers who, taking advantage of farmers' vulnerability, **dictate** prices. One commentator suggested farmers can gain greater control over prices and **minimise** price volatility by selling directly to consumers.

Similarly, Sonali Bisht, founder and advisor to the Institute of Himalayan Environmental Research and Education (INHERE), India, wrote that copipunity-

Consequence= outcome, result, effect...

Magnitude= scale, size...

Frequency= rate, regularity, occurrence

Solution= key, answer, resolution

Resilient= strong.

Executive= senior manager, decision-maker...

Peasant= a poor farmer.

Diversify= expand, spread,

Strategy= plan.

Enhance= improve, boost...

Synchronise= to happen at exactly the same time, or to arrange for two or more actions to happen at exactly the same time.

Bargaining= dealing.

Dictate= to control or influence something.

supported agriculture, where consumers invest in local farmers by **subscription** and guarantee producers a fair price, is a risk-sharing model worth more attention. Direct food **distribution** systems not only encourage small-scale agriculture but also give consumers more control over the food they **consume**, she wrote.

READING PASSAGE 2

The Lost City

An explorer's encounter with the **ruined** city of Machu Picchu, the most famous icon of the Inca civilization

A When the US explorer and academic Hiram Bingham arrived in South America in 1911, he was ready for what was to be the greatest achievement of his life: the **exploration** of the **remote** hinterland to the west of Cusco, the old capital of the Inca **empire** in the Andes mountains of Peru. His goal was to locate the remains of a city called Vitcos, the last capital of the Inca civilisation.

Cusco lies on a high **plateau** at an **elevation** of more than 3,000 metres, and Bingham's plan was to **descend** from this plateau along the valley of the Urubamba river, which takes a circuitous route down to the Amazon and passes through an area of dramatic **canyons** and mountain ranges.

B When Bingham and his team **set off** down the Urubamba in late July, they had an advantage over travellers who had **preceded** them: a track had recently been blasted down the **valley canyon** to enable rubber to be **brought up** by mules from the jungle. Almost all previous travellers had left the river at Ollantaytambo and taken a high pass across the mountains to rejoin the river lower down, thereby cutting a **substantial** corner, but also therefore never passing through the area around Machu Picchu.

C On 24 July they were a few days into their descent of the valley. The day began slowly, with Bingham trying to arrange sufficient mules for the next stage of the **trek**. His **companions** showed no interest in **accompanying** him up the nearby hill to see some

Subscription= an amount of money you pay regularly to be a member of an organization or to help its work, or the act of paying money for this.

Distribution= allocation, spreading...

Consume= eat, use...

Ruin= damage, destroy, devastate...

Civilization= society.

Exploration= discovery.

Remote= far-off, distant...

Empire= a group of countries that are all controlled by one ruler or government.

Plateau= a large area of flat land that is higher than the land around it.

Elevation= height, distance from the ground...

Descend= go down, move down...

Canyon= a deep valley with very steep sides of rock that usually has a river running through it.

Set off= get going, start out...

Precede = to go somewhere before someone else.

Valley canyon= a deep valley with very steep sides of rock that usually has a river running through it.

Bring up= raise, care, look after...

Substantial= significant, important...

Trek= hike, walk...

Companion= friend, buddy...

Accompany= go with, come with...

ruins that a local farmer, Melchor Arteaga, had told them about the night before. The morning was **dull** and **damp**, and Bingham also seems to have been less than **keen** on the **prospect** of climbing the hill. In his book *Lost City of the Incas*, he relates that he made the **ascent** without having the least expectation that he would find anything at the top.

D Bingham writes about the **approach** in **vivid style** in his book. First, as he climbs up the hill, he describes the ever-present possibility of deadly snakes, 'capable of making **considerable** springs when in **pursuit** of their **prey**'; not that he sees any. Then there's a sense of **mounting** discovery as he **comes across** great sweeps of terraces, then a **mausoleum**, followed by **monumental** staircases and, **finally**, the grand **ceremonial** buildings of Machu Picchu. 'It seemed like an unbelievable dream the sight held me **spellbound**', he wrote.

E We should remember, however, that *Lost City of the Incas* is a work of **hindsight**, not written until 1948, many years after his journey. His **journal** entries of the time **reveal** a much more gradual appreciation of his achievement. He spent the afternoon at the ruins noting down the **dimensions** of some of the buildings, then descended and rejoined his companions, to whom he seems to have said little about his discovery. At this stage, Bingham didn't realise the extent or the importance of the site, nor did he realise what use he could make of the discovery.

F However, soon after returning it occurred to him that he could make a name for himself from this discovery. When he came to write the National Geographic magazine article that broke the story to the world in April 1913, he knew he had to produce a big idea. He **wondered** whether it could have been the birthplace of the very first Inca, Manco the Great, and whether it could also have been what **chroniclers** described as 'the last city of the Incas'. This term refers to Vilcabamba the settlement where the Incas had **fled** from Spanish **invaders** in the 1530s. Bingham made **desperate** attempts to prove this belief for nearly 40 years. Sadly, his **vision** of the **site** as both the beginning and end of the Inca civilisation, while a **magnificent** one, is **inaccurate**. We now know, that Vilcabamba actually lies 65 kilometres away in the depths of the jungle.

Dull= boring, uninteresting...

Damp= moist, wet...

Ascent= climb, rise...

Vivid= vivid memories, dreams, descriptions, etc are so clear that they seem real.

Pursuit= chase, hunt...

Prey= an animal, bird etc that is hunted and eaten by another animal.

Mounting= gradually increasing.

Come across= find.

Mausoleum= a large stone building made specially to contain the body of a dead person, or the dead bodies of an important family.

Monumental= historic, classic...

Spellbound= extremely interested in.

Hindsight= the ability to understand a situation only after it has happened.

Dimension= aspect, feature, factor...

Wonder= self-ask.

Chronicler= storyteller.

Flee= run away, escape...

Invader= attacker, soldier...

Desperate= a desperate action is something that you only do because you are in a very bad situation.

Magnificent= good, beautiful, impressive, brilliant...

Inaccurate= wrong, incorrect...

G One question that has **perplexed** visitors, historians and **archaeologists** alike ever since Bingham, is why the site seems to have been **abandoned** before the Spanish **Conquest**. There are no references to it by any of the Spanish chroniclers - and if they had known of its existence so close to Cusco they would certainly have come in search of gold.

An idea which has gained wide acceptance over the past few years is that Machu Picchu was a moya, a country estate built by an Inca **emperor** to escape the cold winters of Cusco, where the **elite** could enjoy **monumental** architecture and **spectacular** views. Furthermore, the particular architecture of Machu Picchu suggests that it was constructed at the time of the greatest of all the Incas, the emperor Pachacuti (1438-71). By custom, Pachacuti's descendants built other similar estates for their own use, and so Machu Picchu would have been abandoned after his death, some 50 years before the Spanish Conquest.

Perplex= confuse.

Archaeologist= the person studying about ancient societies by examining what remains of their buildings, graves, tools etc.

Abandon= leave behind.

Conquest= take-over, invasion, control...

Emperor= ruler, royal leader...

Elite= a group of people who have a lot of power and influence because they have money, knowledge, or special skills.

Monumental= historic, classic...

Spectacular= stunning, fantastic, impressive

READING PASSAGE 3

The Benefits of Being Bilingual

A According to the latest figures, the majority of the world's population is now **bilingual** or **multilingual**, having grown up speaking two or more languages. In the past, such children were considered to be at a disadvantage compared with their **monolingual** **peers**. Over the past few decades, however, technological advances have allowed researchers to look more deeply at how bilingualism interacts with and changes the **cognitive** and **neurological** systems, thereby identifying several clear benefits of being bilingual.

Bilingual= able to speak two languages equally well.

Multilingual= using, speaking, or written in several different languages.

Monolingual= speaking or using only one language.

Peers= the people who are the same age as you, or who have the same type of job, social class etc.

Cognitive= related to the process of knowing, understanding, and learning something.

Neurological= the scientific study of the nervous system and its diseases.

Identify= recognize, discover, find, detect...

B

Research shows that when a bilingual person uses one language, the other is active at the same time. When we hear a word, we don't hear the entire word all at once: the sounds arrive in **sequential** order. Long before the word is finished, the brain's language system begins to guess what that word might be. If you hear 'can', you will likely **activate** words like 'candy' and 'candle' as well, at least during the earlier stages of word recognition. For bilingual people, this activation is not limited to a single language; **auditory input** activates **corresponding** words regardless of the language to which they belong. Some of the most **compelling** evidence for this **phenomenon**, called 'language co-activation', comes from studying eye movements. A Russian-English bilingual asked to 'pick up a marker' from a set of objects would look more at a stamp than someone who doesn't know Russian, because the Russian word for 'stamp', marka, sounds like the English word he or she heard, 'marker'. In cases like this, language co-activation occurs because what the listener hears could map onto words in either language.

C

Having to **deal with** this **persistent** linguistic competition can result in difficulties, however. For instance, knowing more than one language can cause speakers to name pictures more slowly, and can increase 'tip-of-the-tongue states', when you can almost, but not quite, bring a word to mind. As a result, the **constant juggling** of two languages creates a need to control how much a person **accesses** a language at any given time. For this reason, bilingual people often perform better on **tasks** that **require conflict** management. In the **classic** Stroop Task, people see a word and are asked to name the colour of the word's font. When the colour and the word match (i., the word 'red' printed in red), people correctly name the colour more quickly than when the colour and the word don't match (i., the word 'red' printed in blue). This occurs because the word itself ('red') and its font colour (blue) **conflict**. Bilingual people often **excel** at **tasks** such as this, which tap into the ability to ignore **competing** perceptual information and **focus** on the **relevant aspects** of the input. Bilinguals are also better at **switching** between two tasks; for example, when bilinguals have to switch from **categorizing** objects by colour (red or green) to **categorizing** them by shape (circle or triangle), they do so more quickly than

Sequential= happening in a fixed order, where a series of related actions, events etc lead to a particular result.

Activate= make active.

Corresponding= matching, equivalent, related...

Compelling= persuasive, convincing, undeniable...

Phenomenon= something that happens or exists in society, science, or nature, especially something that is studied because it is difficult to understand.

Deal with= cope with, handle...

Persistent= lasting, remaining...

Juggle= if you juggle two jobs or activities, you try to fit them both into your life.

Access= get into, approach...

Conflict= differ.

Excel= do extremely well.

Competing= opposing.

Switch= change.

monolingual people, **reflecting** better **cognitive** control when having to make **rapid** changes of **strategy**.

D

It also seems that the neurological roots of the bilingual advantage extend to brain **areas** more traditionally **associated with sensory** processing. When monolingual and bilingual **adolescents** listen to simple speech sounds without any **intervening** background noise, they show highly **similar** brain **stem** responses. When researchers play the same sound to both groups in the presence of background noise, however, the bilingual listeners' neural response is **considerably** larger, reflecting better **encoding** of the sound's **fundamental** frequency, a **feature** of sound closely related to **pitch** perception.

E

Such improvements in cognitive and **sensory processing** may help a bilingual person to **process** information in the environment, and help explain why bilingual **adults acquire** a third language better than monolingual **adults** master a second language. This advantage may be rooted in the skill of focusing on information about the new language while reducing **interference** from the languages they already know.

F

Research also indicates that bilingual experience may help to keep the cognitive **mechanisms** sharp by recruiting **alternate** brain **networks** to **compensate** for those that become damaged during aging. Older bilinguals enjoy improved memory relative to monolingual people, which can lead to real-world health benefits. In a study of over 200 patients with Alzheimer's disease, a **degenerative** brain disease, bilingual patients reported showing **initial symptoms** of the disease an average of five years later than monolingual patients. In a follow-up study, researchers compared the brains of bilingual and monolingual patients matched on the severity of Alzheimer's symptoms. Surprisingly, the bilinguals' brains had more **physical** signs of disease than their monolingual **counterparts**, even though their outward behaviour and abilities were the same. If the brain is an engine, **bilingualism** may help it to go farther on the same amount of fuel.

G

Reflect= be a sign of, signal, show, indicate...

Rapid= fast, quick...

Strategy= plan.

Associate with= join with, merge with, combine with...

Adolescent= a young person, usually between the ages of 12 and 18, who is developing into an adult.

Intervene= to interrupt someone when they are speaking.

Stem= the part of a word that stays the same when different endings are added to it, for example 'driv-' in 'driving'.

Encode= program, instruct...

Pitch= tone.

Sensory= relating to or using your senses of sight, hearing, smell, taste, or touch.

Interference=an act of interfering(to deliberately get involved in a situation where you are not wanted or needed).

Alternate= substitute, different...

Degenerative= a degenerative illness gradually gets worse and cannot be stopped.

Symptom= warning sign.

Counterpart= matching part, corresponding item...

Furthermore, the benefits associated with bilingual experience seem to start very early. In one study, researchers taught seven-month-old babies growing up in monolingual or bilingual homes that when they heard a tinkling sound, a puppet appeared on one side of a screen. Halfway through the study, the puppet began appearing on the opposite side of the screen. In order to get a **reward**, the **infants** had to adjust the rule they'd learned; only the bilingual babies were able to successfully learn the new rule. This suggests that for very young children, as well as for older people, **navigating** a multilingual environment imparts advantages that transfer far beyond language.

Reward= Gift.

Infant= very young baby, newborn baby.

Navigate= to understand or deal with something complicated.

Test 3 READING PASSAGE 1

Flying tortoises

An airborne **reintroduction** programme has helped conservationists take significant steps to protect the endangered Galapagos tortoise.

A

Forests of **spiny cacti** cover much of the **uneven lava** plains that separate the **interior** of the Galapagos island of Isabela from the Pacific Ocean. With its five distinct volcanoes, the island **resembles** a **lunar** landscape. Only the thick **vegetation** at the skirt of the often cloud-covered peak of Sierra Negra offers **respite** from the barren terrain below.

This **inhospitable** environment is home to the giant Galapagos tortoise. Some time after the Galapagos's birth, around five million years ago, the islands were colonised by one or more tortoises from mainland South America. As these ancestral tortoises settled on the individual islands, the different populations adapted to their unique environments, giving rise to at least 14 different subspecies. Island life agreed with them. In the absence of significant **predators**, they grew to become the largest and longest-living tortoises on the

Reintroduce= Bring back.

Spiny= a spiny animal or plant has lots of stiff sharp points.

Cacti= a desert plant with sharp points instead of leaves.

Uneven= not smooth, flat, or level.

Lava= hot liquid rock that flows from a volcano, or this rock when it has become solid.

Interior= inner part, heart, center...

Resemble= look like, be similar to...

Lunar= relating to moon.

Respite= a short time when something bad stops happening, so that the situation is temporarily better.

Vegetation= plants.

Inhospitable= unfriendly.

Predator= an animal that kills and eats other animals.

planet, weighing more than 400 kilograms, occasionally exceeding 1,8 metres in length and living for more than a century.

B

Before human arrival, the archipelago's tortoises numbered in the hundreds of thousands. From the 17th century onwards, **pirates** took a few on board for food, but the arrival of whaling ships in the 1790s saw this exploitation grow **exponentially**. **Relatively immobile** and **capable** of surviving for months without food or water, the tortoises were taken on board these ships to act as food **supplies** during long ocean passages. Sometimes, their bodies were processed into high- **grade** oil.

In total, an estimated 200,000 animals were taken from the archipelago before the 20th century. This historical **exploitation** was then **exacerbated** when settlers came to the islands. They hunted the tortoises and **destroyed** their **habitat** to clear land for agriculture. They also introduced alien species - **ranging** from cattle, pigs, goats, rats and dogs to plants and ants - that either prey on the eggs and young tortoises or damage or destroy their habitat.

C

Today, only 11 of the original subspecies **survive** and of these, several are highly **endangered**. In 1989, work began on a tortoise-breeding centre just outside the town of Puerto Villamil on Isabela, **dedicated** to protecting the island's tortoise populations. The centre's captive-breeding programme proved to be extremely successful, and it **eventually** had to **deal with** an overpopulation problem.

D

The problem was also a **pressing** one. Captive-bred tortoises can't be reintroduced into the wild until they're at least five years old and weigh at least 4,5 kilograms, at which point their size and weight - and their hardened shells - are **sufficient** to protect them from predators. But if people wait too long after that point, the tortoises **eventually** become too large to transport.

E

For years, **repatriation** efforts were **carried out** in small numbers, with the tortoises carried on the backs of men over weeks of long, treacherous hikes along narrow trails. But in November 2010, the environmentalist and Galapagos National Park liaison

Pirate= someone who sails on the seas, attacking other boats and stealing things from them.

Exponentially= exponential growth, increase etc becomes faster as the amount of the thing that is growing increases.

Relatively= quite, comparatively, fairly, rather...

Immobile= motionless.

Supply= source.

Exploitation= mistreatment.

Exacerbate= worsen.

Destroy= damage, spoil, ruin...

Habitat= the natural home of a plant or animal.

Endangered= in danger of extinction.

Dedicate= to give all your attention and effort to one particular thing.

Deal with= cope with, tackle, solve...

Pressing= urgent.

Repatriation= to send someone back to their own country.

Carry out= do.

officer Godfrey Merlin, a visiting private motor **yacht** captain and a **helicopter** pilot gathered around a table in a small cafe in Puerto Ayora on the island of Santa Cruz to work out more **ambitious** reintroduction. The **aim** was to use a helicopter to move 300 of the **breeding** centre's tortoises to various locations close to Sierra Negra.

F

This **unprecedented** effort was made possible by the owners of the 67-metre yacht White Cloud, who provided the Galapagos National Park with free use of their helicopter and its experienced pilot, as well as the **logistical** support of the yacht, its captain and **crew**. Originally an air ambulance, the yacht's helicopter has a rear double door and a large **internal** space that's well suited for **cargo**, so a custom **crate** was designed to hold up to 33 tortoises with a total weight of about 150 kilograms. This weight, together with that of the fuel, pilot and four crew, approached the helicopter's maximum **payload**, and there were times when it was clearly right on the edge of the helicopter's capabilities. During a **period** of three days, a group of **volunteers** from the breeding centre worked around the clock to prepare the young tortoises for transport. Meanwhile, park **wardens**, dropped off ahead of time in remote **locations**, cleared landing **sites** within the thick brush, cacti and lava rocks.

G

Upon their release, the **juvenile** tortoises quickly spread out over their ancestral **territory**, investigating their new surroundings and feeding on the vegetation. Eventually, one tiny tortoise **came across** a fully grown giant who had been **lumbering** around the island for around a hundred years. The two stood side by side, a powerful **symbol** of the regeneration of an **ancient** species.

Yacht= a large boat with a sail, used for pleasure or sport, especially one that has a place where you can sleep.

Helicopter= a type of aircraft with large metal blades on top which turn around very quickly to make it fly.

Aim= goal, target, purpose...

Breeding= reproduction.

Unprecedented= exceptional, first-time, unique...

Logistical= relating to the logistics of doing something (the business of transporting things such as goods to the place where they are needed).

Crew= team, group..

Cargo= the goods that are being carried in a ship or plane.

Crate= a large box made of wood or plastic that is used for carrying fruit, bottles etc.

Payload= the amount of goods or passengers that can be carried by a vehicle, or the goods that a vehicle is carrying.

Warden= Supervisor, guardian...

Juvenile= young.

Territory= the area that an animal, bird etc regards as its own and will defend against other animals.

Come across= find, meet...

Lumber= to move in a slow awkward way.

Ancient= very old.

READING PASSAGE 2

The Intersection of Health Sciences and Geography

A While many diseases that **affect** humans have been **eradicated** due to improvements in **vaccinations** and the availability of healthcare, there are still **areas** around the world where certain health issues are more **prevalent**. In a world that is far more globalised than ever before, people come into **contact** with one another through travel and living closer and closer to each other. As a result, super-viruses and other **infections resistant to** antibiotics are becoming more and more common.

B Geography can often play a very large **role** in the health concerns of certain populations. For instance, depending on where you live, you will not have the same health concerns as someone who lives in a different geographical region. Perhaps one of the most **obvious** examples of this idea is malaria-prone areas, which are usually **tropical regions** that **foster** a warm and **damp environment** in which the mosquitos that can give people this disease can grow. Malaria is much less of a problem in high-altitude **deserts**, for instance.

C In some countries, geographical **factors** influence the health and **well-being** of the population in very **obvious** ways. In many large cities, the wind is not strong enough to clear the air of the massive amounts of **smog** and pollution that cause asthma, lung problems, eyesight issues and more in the people who live there. Part of the problem is, of course, the **massive** number of cars being driven, in addition to factories that run on coal power. The rapid industrialisation of some countries in recent years has also led to the cutting down of forests to allow for the expansion of big cities, which makes it even harder to fight the pollution with the fresh air that is produced by plants.

Eradicate= eliminate, get rid of, wipe out, destroy, remove...

Vaccination= immunization= to protect a person or animal from a disease by giving them a vaccine.

Prevalent= common.

Infection= disease, illness, virus...

Resistant to= unaffected by.

Tropical= hot.

Foster= promote.

Damp= moist, wet.

Desert= a large area of land where it is always very dry, there are few plants, and there is a lot of sand or rocks.

Mosquito= a small flying insect that sucks the blood of people and animals, sometimes spreading the disease malaria.

Well-being= a feeling of being comfortable, healthy, and happy.

Smog= dirty air, air pollution...

Massive= huge, enormous, very big...

D It is in situations like these that the field of health geography comes into its own. It is an increasingly important **area** of study in a world where diseases like polio are **re-emerging**, **respiratory diseases** continue to spread, and malaria-prone **areas** are still fighting to find a better **cure**. Health geography is the **combination** of, on the one hand, knowledge regarding geography and **methods** used to **analyse** and **interpret** geographical information, and on the other, the study of health, diseases and healthcare practices around the world. The **aim** of this hybrid science is to **create solutions** for common geography-based health problems. While people will always **be prone to** illness, the study of how geography affects our health could lead to the **eradication** of certain illnesses, and the **prevention** of others in the future. By understanding why and how we get sick, we can change the way we treat illness and disease **specific** to certain geographical locations.

E The geography of disease and ill health analyses the **frequency** with which certain diseases appear in different parts of the world, and **overlays** the **data** with the geography of the region, to see if there could be a **correlation** between the two. Health geographers also study **factors** that could make certain **individuals** or a population more likely to be taken ill with a **specific** health concern or disease, as compared with the population of another area. Health geographers in this field are usually trained as healthcare workers, and have an understanding of basic epidemiology as it relates to the **spread** of diseases among the population.

F Researchers study the **interactions** between humans and their **environment** that could **lead to** illness (such as asthma in places with high levels of pollution) and work to **create** a clear way of categorising illnesses, diseases and epidemics into local and global scales. Health geographers can map the spread of illnesses and attempt to **identify** the reasons behind an increase or decrease in illnesses, as they work to find a way to halt the further spread or re-emergence of diseases in **vulnerable** populations.

G The second subcategory of health geography is the geography of healthcare **provision**. This group studies the availability (of lack thereof) of healthcare resources to **individuals** and populations around the world. In

Re-emerge= come back.

Respiratory diseases= diseases relating to breathing or your lungs.

Cure= treatment.

Combination= mixture.

Aim= goal, target, purpose...

Solution= key, answer...

Prone to= likely to do something or suffer from something, especially something bad or harmful.

Prevent= stop.

Frequency= rate of recurrence.

Overlay= cover.

Correlation= association, connection, relationship, link...

Spread= increase, broaden, expand...

Interactions= relations, connections...

Lead to= bring about, cause...

Vulnerable= defenseless, weak...

Provision= when you provide something that someone needs now or in the future.

both **developed** and **developing** nations there is often a very large **discrepancy** between the **options available** to people in different social classes, **income brackets**, and levels of education. Individuals working in the **area** of the geography of healthcare provision attempt to **assess** the levels of healthcare in the **area** (for instance, it may be very difficult for people to get **medical** attention because there is a mountain between their village and the nearest hospital). These researchers are on the frontline of making recommendations regarding **policy** to international organisations, local government bodies and others.

H The field of health geography is often **overlooked**, but it **constitutes** a huge **area** of need in the fields of geography and healthcare. If we can understand how geography affects our health no matter where in the world we are **located**, we can better treat disease, prevent illness, and keep people safe and well.

Developed= a developed country is one of the rich countries of the world with many industries, comfortable living for most people, and usually an elected government.

Developing= a developing country is a poor country that is trying to increase its industry and trade and improve life for its people.

Discrepancy= difference, inconsistency...

Bracket= group, range, rank...

Overlook= ignore, fail to notice...

Constitute= Set up, establish, create, found...

READING PASSAGE 3

Music and the emotions

Neuroscientist Jonah Lehrer considers the emotional power of music

Why does music make us feel? On the one hand, music is a purely **abstract** art form, **devoid** of language or **explicit** ideas. And yet, even though music says little, it still manages to touch us deeply. When listening to our favourite songs, our body **betrays** all the **symptoms** of emotional **arousal**. The pupils in our eyes **dilate**, our pulse and blood pressure rise, the electrical conductance of our skin is lowered, and the cerebellum, a brain **region** associated with bodily movement, becomes strangely active. Blood is even re-directed to the muscles in our legs. In other words, sound stirs us at our biological roots.

A recent paper in Neuroscience by a **research team** in Montreal, Canada, marks an important step in **repealing** the **precise** **underpinnings** of 'the **potent** pleasurable **stimulus**' that is music. Although the study **involves** plenty of fancy technology, including functional magnetic resonance imaging (fMRI) and ligand-based positron **emission** tomography (PET) scanning, the **experiment** itself was rather **straightforward**. After screening 217 **individuals** who responded to advertisements requesting people who experience 'chills' to instrumental music, the scientists **narrowed down** the subject pool to ten. They then asked the subjects to bring in their playlist of favourite songs - **virtually** every **genre** was represented, from techno to tango - and played them the music while their brain activity was **monitored**. Because the scientists were **combining** methodologies (PET and fMRI), they were able to **obtain** an impressively exact and detailed portrait of music in the brain. The first thing they discovered is that music **triggers** the production of dopamine - a **chemical** with a key **role** in setting people's **moods** - by the neurons (nerve cells) in both the dorsal and ventral **regions** of the brain. As these two **regions** have long been linked with the experience of pleasure, this finding isn't particularly surprising.

What is rather more **significant** is the finding that the dopamine neurons in the caudate - a **region** of the brain involved in learning stimulus-response associations, and in **anticipating** food and other 'reward' stimuli - were at their most active around 15 seconds before the participants' favourite moments in the music. The researchers call this the 'anticipatory phase' and argue that the **purpose** of this activity is to help us **predict** the arrival of our favourite part. The

Devoid= to be completely lacking in something.

Betray= show accidentally, leak.

Symptom= sign.

Arousal= excitement, especially sexual excitement.

Dilate= open, widen, expand...

Repeal= Cancel, abolish, end...

Precise= exact, accurate...

Underpin= to give strength or support to something and to help it succeed.

Potent=strong, powerful...

Stimulus= something that helps a process to develop more quickly or more strongly.

Involve= include, contain...

Experiment= Test, research...

Straightforward= easy to understand, simple...

Narrow down= restrict, limit, reduce...

Genre= a particular type of art, writing, music etc, which has certain features that all examples of this type share.

Monitor= check, examine...

Combine= mix.

Trigger= activate, generate, cause...

Mood= temper, feel...

Anticipating= expecting.

Purpose=aim, object, target...

question, of course, is what all these dopamine neurons are up to. Why are they so active in the period preceding the acoustic **climax**? After all, we typically associate **surges** of dopamine with pleasure, with the processing of actual rewards. And yet, this cluster of cells is most active when the 'chills' have yet to arrive, when the melodic pattern is still unresolved.

One way to answer the question is to look at the music and not the neurons. While music can often seem (at least to the outsider) like a labyrinth of **intricate** patterns, it turns out that the most important part of every song or **symphony** is when the patterns break down, when the sound becomes unpredictable. If the music is too obvious, it is annoyingly boring, like an alarm clock. Numerous studies, after all, have **demonstrated** that dopamine neurons quickly adapt to predictable rewards. If we know what's going to happen next, then we don't get excited. This is why composers often introduce a key note in the beginning of a song, spend most of the rest of the piece in the studious avoidance of the **pattern**, and then finally repeat it only at the end. The longer we are denied the pattern we expect, the greater the emotional release when the pattern returns, safe and sound.

To demonstrate this psychological **principle**, the musicologist Leonard Meyer, in his classic book *Emotion and Meaning in Music* (1956), **analysed** the 5th movement of Beethoven's String Quartet in C-sharp minor, Op. 131. Meyer wanted to show how music is defined by its **flirtation** with - but not submission to - our expectations of order. Meyer dissected 50 measures (bars) of the masterpiece, showing how Beethoven begins with the clear statement of a rhythmic and harmonic pattern and then, in an ingenious tonal dance, carefully holds off repeating it. What Beethoven does instead is suggest variations of the pattern. He wants to **preserve** an element of uncertainty in his music, making our brains **beg** for the one **chord** he refuses to give us. Beethoven saves that chord for the end.

According to Meyer, it is the **suspenseful tension** of music, arising out of our **unfulfilled** expectations, that is the source of the music's feeling. While earlier theories of music focused on the way a sound can refer to the real world of images and experiences - its 'connotative' meaning - Meyer argued that the **emotions** we find in music come from the **unfolding**

Climax= the most exciting or important part of a story or experience, which usually comes near the end.

Surge= if a large amount of a liquid, electricity, chemical etc surges, it moves very quickly and suddenly.

Intricate= complicated, complex...

Symphony= a long piece of music usually in four parts, written for an orchestra.

Demonstrate= show, prove...

Pattern= a regularly repeated arrangement of sounds or words.

Principle= rule, theory...

Analyze= examine, study, investigate...

Flirtation= a short period of time during which you are interested in something.

Preserve= protect, maintain...

Beg= ask for, request...

Chord= a combination of several musical notes that are played at the same time and sound pleasant together.

Suspenseful= a feeling of excitement or anxiety when you do not know what will happen next.

Tension= worry, nervousness, anxiety...

Unfulfilled= displeased.

Emotion= feeling, sensation...

Unfolding event= if a series of events unfolds, they happen.

events of the music itself. This 'embodied meaning' arises from the patterns the symphony invokes and then ignores. It is this uncertainty that triggers the **surge** of dopamine in the caudate, as we struggle to figure out what will happen next. We can predict some of the notes, but we can't predict them all, and that is what keeps us listening, waiting expectantly for our reward, for the pattern to be completed.

Surge= to increase suddenly.

Test 4 READING PASSAGE 1

The History of Glass

From our earliest origins, man has been making use of glass. Historians have discovered that a type of natural glass - obsidian - formed in places such as the mouth of a volcano as a result of the intense heat of an **eruption** melting sand - was first used as tips for **spears**. Archaeologists have even found evidence of man-made glass which dates back to 4000 BC; this took the form of **glazes** used for coating stone beads. It was not until 1500 BC, however, that the first hollow glass **container** was made by covering a sand core with a layer of molten glass.

Glass blowing became the most common way to make glass containers from the first century BC. The glass made during this time was highly coloured due to the **impurities** of the **raw** material. In the first century AD, methods of creating colourless glass were developed, which was then **tinted** by the addition of colouring materials. The secret of glass making was taken across Europe by the Romans during this century. However, they **guarded** the skills and technology required to make glass very closely, and it was not until their empire **collapsed** in 476 AD that glass-making knowledge became widespread throughout Europe and the Middle East. From the 10th century onwards, the Venetians gained a **reputation** for technical skill and artistic ability in the making of glass

Eruption= if a volcano erupts, it explodes and sends smoke, fire, and rock into the sky.

Spear= a pole with a sharp pointed blade at one end, used as a weapon in the past

Evidence= proof.

Glaze= a liquid that is used to cover plates, cups etc made of clay to give them a shiny surface.

Container= bottle.

Impurity= a substance of a low quality that is contained in or mixed with something else, making it less pure.

Raw= unprocessed, unrefined, untreated...

Tint= to slightly change the colour of something, especially hair.

Guard= protect.

Collapse= fall down, end...

Reputation= standing.

bottles, and many of the city's craftsmen left Italy to set up glassworks throughout Europe.

A **major** milestone in the history of glass occurred with the invention of lead crystal glass by the English glass manufacturer George Ravenscroft (1632 - 1683). He attempted to **counter** the effect of clouding that sometimes occurred in blown glass by introducing lead to the raw materials used in the process. The new glass he created was softer and easier to decorate, and had a higher refractive index, adding to its brilliance and beauty, and it proved invaluable to the optical industry. It is thanks to Ravenscroft's invention that optical lenses, **astronomical** telescopes, microscopes and the like became possible.

In Britain, the modern glass industry only really started to develop after the **repeal** of the Excise Act in 1845. Before that time, heavy taxes had been placed on the amount of glass melted in a glasshouse, and were **levied** continuously from 1745 to 1845. Joseph Paxton's Crystal Palace at London's Great Exhibition of 1851 marked the beginning of glass as a material used in the building industry. This **revolutionary** new building encouraged the use of glass in public, **domestic** and horticultural architecture. Glass manufacturing **techniques** also improved with the advancement of science and the development of better technology.

From 1887 onwards, glass making developed from traditional mouth-blowing to a semi-automatic process, after factory-owner HM Ashley introduced a machine **capable** of producing 200 bottles per hour in Castleford, Yorkshire, England - more than three times quicker than any **previous** production **method**. Then in 1907, the first fully **automated** machine was developed in the USA by Michael Owens - founder of the Owens Bottle Machine Company (later the **major** manufacturers Owens-Illinois) - and **installed** in its factory. Owens' invention could produce an **impressive** 2,500 bottles per hour. Other developments followed **rapidly**, but it was not until the First World War when Britain became cut off from essential glass **suppliers**, that glass became part of the scientific sector. Previous to this, glass had been seen as a **craft** rather than a **precise** science.

Today, glass making is big business. It has become a modern, hi-tech industry operating in a **fiercely**

Counter= answer.

Astronomical= relating to the scientific study of the stars.

Repeal= cancel.

Levi= charge, tax...

Method= technique.

Automated= mechanized, programmed...

Install= establish.

Impressive= remarkable, extraordinary...

Rapid= fast, quick...

Supplier= provider

Craft= a job or activity in which you make things with your hands, and that you usually need skill to do.

Fiercely= strongly or severely.

competitive global market where quality, design and service levels are **critical** to maintaining market share. Modern glass plants are capable of making millions of glass containers a day in many different colours, with green, brown and clear remaining the most popular. Few of us can imagine modern life without glass. It features in almost every aspect of our lives - in our homes, our cars and whenever we sit down to eat or drink. Glass packaging is used for many products, many **beverages** are sold in glass, as are numerous foodstuffs, as well as medicines and **cosmetics**.

Glass is an **ideal** material for recycling, and with growing consumer concern for **green issues**, glass bottles and jars are becoming ever more popular. Glass recycling is good news for the environment. It saves used glass containers being sent to **landfill**. As less energy is needed to melt recycled glass than to melt down raw materials, this also saves fuel and production costs. Recycling also reduces the need for raw materials to be quarried, thus saving **precious** resources.

Critical= significant, important, vital, crucial, essential...

Beverage= drink.

Cosmetics= makeup, eye shadow, mascara, lipstick, perfume...

Ideal= perfect.

Green= environmentally friendly

Landfill= a place where waste is buried under the ground.

Precious= valuable.

READING PASSAGE 2

Bring back the big cats

It's time to start returning **vanished** native animals to Britain, says John Vesty. There is a poem, written around 598 AD, which describes hunting a **mystery** animal called a llewyn. But what was it? Nothing seemed to fit, until 2006, when an animal bone, dating from around the same period, was found in the Kinsey Cave in northern England. Until this discovery, the lynx - a large spotted cat with tassel led ears - was **presumed** to have **died out** in Britain at least 6,000 years ago, before the **inhabitants** of these islands **took up** farming. But the 2006 find, together with three others in Yorkshire and Scotland, is **compelling evidence** that the lynx and the mysterious llewyn were in fact one and the same animal. If this is so, it would bring forward the tassel-eared cat's estimated **extinction** date by **roughly** 5,000 years.

Vanished= missing.

Mystery= unknown, unidentified...

Presume= assume, guess, suppose...

Die out= become extinct, disappear...

Inhabitant= resident, citizen...

Take up= start, adopt...

Compelling= forceful, convincing, persuasive, undeniable...

Evidence= proof, data...

Extinction= disappearance.

Roughly= approximately, around, about, nearly, almost...

However, this is not quite the last **glimpse** of the animal in British culture. A 9th-century stone cross from the Isle of Eigg shows, alongside the deer, boar and aurochs pursued by a mounted hunter, a speckled cat with tasselled ears. Were it not for the animal's backside having worn away with time, we could have been certain, as the lynx's stubby tail is unmistakable. But even without this key feature, it's hard to see what else the creature could have been. The lynx is now becoming the totemic animal of a movement that is transforming British environmentalism: rewilding. Rewilding means the mass **restoration** of damaged ecosystems. It involves letting trees return to places that have been denuded, allowing parts of the **seabed** to **recover** from trawling and dredging, permitting rivers to flow freely again. Above all, it means bringing back missing species. One of the most striking findings of modern ecology is that ecosystems without large **predators** behave in completely different ways from those that **retain** them. Some of them **drive dynamic** processes that **resonate** through the whole food **chain**, creating niches for hundreds of species that might otherwise **struggle** to survive. The killers turn out to be bringers of life.

Such findings present a big **challenge** to British **conservation**, which has often selected **arbitrary assemblages** of plants and animals and sought, at great effort and **expense**, to **prevent** them from changing. It has tried to preserve the living world as if it were a jar of pickles, letting nothing in and nothing out, keeping nature in a state of arrested development. But ecosystems are not **merely** collections of species; they are also the **dynamic** and ever-shifting relationships between them. And this dynamism often **depends on** large predators.

At sea the **potential** is even greater: by protecting large **areas** from **commercial** fishing, we could once more see what 18th-century literature describes: vast shoals of fish being **chased** by fin and sperm whales, within sight of the English shore. This **policy** would also greatly boost catches in the surrounding seas; the fishing industry's **insistence** on scouring every inch of seabed, leaving no breeding reserves, could not be more damaging to its own interests.

Rewilding is a rare example of an environmental movement in which campaigners **articulate** what they

Glimpse= sight.

Seabed= sea floor (the land at the bottom of the sea).

Predator= an animal that kills and eats other animals.

Drive=force, make....

Resonate= if something such as an event or a message resonates, it seems important or good to people, or continues to do this.

Chain= series.

Struggle= make a great effort, work hard...

Conservation= protection.

Assemblage= a group of things collected together.

Expense= cost.

Prevent= avoid, stop...

Merely= just, only, simply...

Depend on= rely on.

Commercial= marketable, money-making, profit-making...

Chase= hunt.

Insistence= when you demand that something should happen and refuse to let anyone say no.

Articulate= speak out.

are for rather than only what they are against. One of the reasons why the **enthusiasm** for rewilding is spreading so quickly in Britain is that it helps to **create** a more inspiring **vision** than the green movement's usual promise of 'Follow us and the world will be slightly less awful than it would otherwise have been.

The lynx presents no **threat** to human beings: there is no known **instance** of one preying on people. It is a specialist predator of roe deer, a species that has exploded in Britain in recent decades, holding back, by **intensive** browsing, attempts to re-establish forests. It will also winkle out sika deer: an **exotic** species that is almost impossible for human beings to control, as it hides in impenetrable plantations of young trees. The attempt to reintroduce this predator marries well with the aim of bringing forests back to parts of our bare and barren uplands. The lynx requires deep cover, and as such presents little risk to sheep and other **livestock**, which are supposed, as a condition of farm **subsidies**, to be kept out of the woods.

On a recent trip to the Cairngorm Mountains, I heard several conservationists suggest that the lynx could be reintroduced there within 20 years. If trees return to the bare hills elsewhere in Britain, the big cats could soon follow. There is nothing **extraordinary** about these **proposals**, seen from the **perspective** of anywhere else in Europe. The lynx has now been reintroduced to the Jura Mountains, the Alps, the Vosges in eastern France and the Harz mountains in Germany, and has re-established itself in many more places. The European population has **tripled** since 1970 to **roughly** 10,000. As with wolves, bears, beavers, boar, bison, moose and many other species, the lynx has been able to spread as farming has, left the hills and people discover that it is more **lucrative** to protect charismatic wildlife than to hunt it, as tourists will pay for the **chance** to see it. Large-scale rewilding is happening almost everywhere - **except** Britain.

Here, **attitudes** are just beginning to change. Conservationists are starting to accept that the old preservation-jar model is failing, even on its own terms. Already, **projects** such as Trees for Life in the Highlands provide a **hint** of what might be coming. An organisation is being set up that will **seek** to catalyse the rewilding of land and sea across Britain, its aim being to reintroduce that rarest of species to British ecosystems: hope.

Enthusiasm= interest.

Threat= danger.

Exotic= unusual, out of the ordinary...

Livestock= farm animals.

Extraordinary= strange, unusual, surprising...

Proposal= plan, suggestion, scheme...

Triple= three time more than a particular number.

Roughly= approximately.

Lucrative= profitable, worthwhile, beneficial...

Chance= opportunity.

Except= but, not including, apart from...

Hint= suggestion.

READING PASSAGE 3

UK companies need more effective boards of directors

A After a number of serious failures of **governance** (that is, how they are managed at the highest level), companies in Britain, as well as elsewhere, should consider radical changes to their directors' roles. It is clear that the role of a board director today is not an easy one. Following the 2008 financial **meltdown**, which **resulted in** a deeper and more **prolonged** period of economic **downturn** than anyone expected, the search for explanations in the many post-mortems of the **crisis** has meant blame has been spread far and wide. Governments, regulators, central banks and **auditors** have all been in the frame. The role of bank directors and management and their widely publicised failures have been extensively **picked over** and examined in reports, **inquiries** and commentaries.

B The knock-on t of this **scrutiny** has been to make the governance of companies in general an issue of intense public debate and has significantly increased the **pressures** on, and the responsibilities of, directors. At the simplest and most practical level, the time involved in **fulfilling** the demands of a board directorship has increased significantly, calling into question the effectiveness of the classic model of corporate governance by part-time, independent non-executive directors. Where once a board schedule may have consisted of between eight and ten meetings a year, in many companies the number of events requiring board input and decisions has dramatically risen. Furthermore, the amount of reading and preparation required for each meeting is increasing. **Agendas** can become overloaded and this

Governance= the act or process of governing.

Meltdown= a situation in which prices fall by a very large amount or an industry or economic situation becomes much weaker.

Result in= cause, bring about...

Prolonged= expanded, stretched...

Downturn= slump, decline...

Crisis= disaster.

Auditor= someone whose job is to officially examine a company's financial records.

Pick over= to examine a group of things very carefully in order to choose the ones you want.

Inquiry= question, investigation...

Pressure= stress.

Scrutiny= examination.

Fulfill=satisfy, meet...

Agenda= a list of problems or subjects that a government, organization etc is planning to deal with.

can mean the time for **constructive** debate must necessarily be **restricted** in favour of getting through the business.

C Often, board business is **devolved to** committees in order to cope with the workload, which may be more efficient but can mean that the board as a whole is less involved in fully **addressing** some of the most important **issues**. It is not uncommon for the audit committee meeting to last longer than the main board meeting itself. Process may take the place of discussion and **be at the expense of** real **collaboration**, so that boxes are ticked rather than issues tackled.

D A radical solution, which may work for some very large companies whose businesses are extensive and complex, is the professional board, whose members would work up to three or four days a week, supported by their own dedicated staff and advisers. There are obvious risks to this and it would be important to establish clear guidelines for such a board to ensure that it did not step on the toes of management by becoming too engaged in the day-to-day running of the company. Problems of **recruitment**, remuneration and independence could also arise and this structure would not be appropriate for all companies. However, more professional and better-informed boards would have been particularly appropriate for banks where the **executives** had access to information that part-time **non-executive** directors lacked, leaving the **latter** unable to **comprehend** or anticipate the 2008 crash.

E One of the main **criticisms** of boards and their directors is that they do not focus sufficiently on longer-term matters of **strategy**, **sustainability** and governance, but instead concentrate too much on short-term financial metrics. **Regulatory** requirements and the structure of the market encourage this behaviour. The tyranny of quarterly reporting can distort board decision-making, as directors have to 'make the numbers' every four months to meet the **insatiable appetite** of the market for more data. This serves to encourage the trading methodology of a certain kind of investor who moves in and out of a stock without engaging in constructive **dialogue** with the company about strategy or performance, and is simply seeking a short-term financial gain. This effect has been made worse by the changing profile of investors due to the globalisation of **capital** and the

Constructive= positive, helpful, beneficial...

Restrict= limit.

Devolve to= pass to, give to...

Address= tackle, deal with...

Issue= problem, matter...

Collaboration= teamwork.

Be at the expense of= if something is done at the expense of someone or something else, it is only achieved by doing something that could harm the other person or thing.

Recruitment= employment, staffing...

Executive= a manager in an organization or company who helps make important decisions.

Non-executive= someone who has a non-executive role is not involved in the daily management of a company or other organization but attends board meetings and gives advice.

Latter= being the second of two people or things, or the last in a list just mentioned (>< former).

Comprehend=understand, know...

Criticism= remarks that say what you think is bad about someone or something.

Strategy= plan.

Sustainability= able to continue for a long time.

Regulatory= having the purpose of controlling an activity, system, or industry, especially by rules.

Insatiable= always wanting more and more of something.

Appetite= desire, liking...

Dialogue= conversation, discussion, talk...

Capital= resources, fund, money...

increasing use of automated trading systems.

Corporate culture adapts and management teams are largely incentivised to meet financial goals.

F **Compensation** for **chief executives** has become a **combat** zone where pitched battles between investors, management and board members are fought, often behind closed doors but increasingly frequently in the full glare of press attention. Many would argue that this is in the interest of **transparency** and good governance as shareholders use their muscle in the area of pay to pressure boards to remove underperforming chief executives. Their powers to vote down executive **remuneration** policies increased when binding votes came into force. The chair of the remuneration committee can be an exposed and lonely role, as Alison Carnwath, chair of Barclays Bank's remuneration committee, found when she had to resign, having been roundly criticised for trying to defend the enormous bonus to be paid to the chief executive; the irony being that she was widely understood to have spoken out against it in the privacy of the committee.

G The financial crisis stimulated a debate about the role and purpose of the company and a heightened awareness of corporate ethics. Trust in the corporation has been eroded and academics such as Michael Sandel, in his thoughtful and bestselling book What Money Can't Buy, are questioning the **morality** of capitalism and the market economy. Boards of companies in all sectors will need to widen their perspective to **encompass** these issues and this may involve a realignment of corporate goals. We live in challenging times.

Compensation= money paid to someone because they have suffered injury or loss, or because something they own has been damaged.

Chief executive= the person who has the highest position in a company or other organization and who makes all the important decisions about how it is run.

Combat= battle, war.

Transparency= clearness, simplicity...

Remuneration= the pay you give someone for something they have done for you.

Morality= ethics.

Encompass= cover.