1. Bài tập 1

LAST MAN STANDING

Some 50,000 years ago, Homo sapiens beat other hominids to become the only surviving species. Kate Ravilious reveals how we did it.

A. Today, there are over seven billion people living on Earth. No other species has exerted as much influence over the planet as us. But turn the clock back 80,000 years and we were one of a number of species roaming the Earth. Our own species, Homo sapiens (Latin for 'wise man'), was most successful in Africa. In western Eurasia, the Neanderthals dominated, while Homo erectus may have lived in Indonesia. Meanwhile, an unusual finger bone and tooth, discovered in Denisova cave in Siberia in 2008, have led scientists to believe that yet another human population - the Denisovans - may also have been widespread across Asia. Somewhere along the line, these other human species died out, leaving Homo sapiens as the sole survivor. So what made us the winners in the battle for survival?

B. Some 74.000 years ago, the Toba 'supervolcano' on the Indonesian island of Sumatra erupted. The scale of the event was so great that ash from the eruption was flung as far as eastern India, more than 2,000 kilometres away. Oxford archaeologist Mike Petraglia and his team have uncovered thousands of stone tools buried underneath the Toba ash. The mix of hand axes and spear tips have led Petraglia to speculate that Homo sapiens and Homo erectus were both living in eastern India prior to the Toba eruption. Based on careful examination of the tools and dating of the sediment layers where they were found, Petraglia and his team suggest that Homo sapiens arrived in eastern India around 78.000 years ago, migrating out of Africa and across Arabia during

a favourable climate period. After their arrival, the simple tools belonging to Homo erectus seemed to lessen in number and eventually disappear completely. 'We think that Homo sapiens had a more efficient hunting technology, which could have given them the edge', says Petraglia, 'Whether the eruption of Toba also played a role in the extinction of the Homo erectus-like species is unclear to us.'

C. Some 45,000 years later, another fight for survival took place. This time, the location was Europe and the protagonists were another species, the Neanderthals. They were a highly successful species that dominated the European landscape for 300.000 years. Yet within just a few thousand years of the arrival of Homo sapiens, their numbers plummeted. They eventually disappeared from the landscape around 30.000 years ago, with their last known refuge being southern Iberia, including Gibraltar. Initially, Homo sapiens and Neanderthals lived alongside each other and had no reason to compete. But then Europe's climate swung into a cold, inhospitable, dry phase. 'Neanderthal and Homo sapiens populations had to retreat to refugia (pockets of habitable land). This heightened competition between the two groups,' explains Chris Stringer, an anthropologist at the Natural History Museum in London.

D. Both species were strong and stockier than the average human today, but Neanderthals were particularly robust, 'Their skeletons show that they had broad shoulders and thick necks,' says Stringer. 'Homo sapiens, on the other hand, had longer forearms, which undoubtedly enabled them to throw a spear from some distance, with less danger and using relatively little energy,' explains Stringer. This long-range ability may have given Homo sapiens an advantage in hunting. When it came to keeping warm, Homo sapiens had another skill: weaving and sewing. Archaeologists have uncovered simple needles fashioned from ivory and bone alongside Homo sapiens, dating as far back as 35,000

years ago. ‘Using this technology, we could use animal skins to make ourselves tents, warm clothes and fur boots,’ says Stringer. In contrast, Neanderthals never seemed to master sewing skills, instead relying on pinning skins together with thorns.

E. A thirst for exploration provided Homo sapiens with another significant advantage over Neanderthals. Objects such as shell beads and flint tools, discovered many miles from their source, show that our ancestors travelled over large distances, in order to barter and exchange useful materials, and share ideas and knowledge. By contrast, Neanderthals tended to keep themselves to themselves, living in small groups. They misdirected their energies by only gathering resources from their immediate surroundings and perhaps failing to discover new technologies outside their territory.

F. Some of these differences in behaviour may have emerged because the two species thought in different ways. By comparing skull shapes, archaeologists have shown that Homo sapiens had a more developed temporal lobe - the regions at the side of the brain, associated with listening, language and long-term memory. 'We think that Homo sapiens had a significantly more complex language than Neanderthals and were able to comprehend and discuss concepts such as the distant past and future', says Stringer. Penny Spikins, an archaeologist at the University of York, has recently suggested that Homo sapiens may also have had a greater diversity of brain types than Neanderthals. ‘Our research indicates that high-precision tools, new hunting technologies and the development of symbolic communication may all have come about because they were willing to include people with "different" minds and specialised roles in their society,’ she explains. 'We see similar kinds of injuries on male and female Neanderthal skeletons, implying there was no such division of labour,' says Spikins.

G. Thus by around 30,000 years ago, many talents and traits were well established in Homo sapiens societies but still absent from Neanderthal communities. Stringer thinks that the Neanderthals were just living in the wrong place at the wrong time. 'They had to compete with Homo sapiens during a phase of very unstable climate across Europe. During each rapid climate fluctuation, they may have suffered greater losses of people than Homo sapiens, and thus were slowly worn down,' he says. 'If the climate had remained stable throughout, they might still be here.'

Adapted from Focus Magazine

The reading passage has seven paragraphs, ***A-G****. Which paragraph contains the following information?*

NB. *You may use any letter more than once.*

1. a comparison of a range of physical features of Neanderthals and Homo sapiens
2. reference to items that were once used for trade
3. mention of evidence for the existence of a previously unknown human species
4. mention of the part played by ill fortune in the downfall of Neanderthal society
5. reference to the final geographical location of Neanderthals

2. Bài tập 2

OUT OF AFRICA: SOLAR ENERGY FROM THE SAHARA

Vivienne Wait reports on how the Sahara Desert could offer a truly green solution to Europe's energy problems.

A. For years, the Sahara has been regarded by many Europeans as a terra incognita* of little economic value or importance. But this idea may soon change completely. Politicians and scientists on both sides of the Mediterranean are beginning to focus on the Sahara's potential to provide power for Europe in the future. They believe the desert's true value comes from the fact that it is dry and empty. Some areas of the Sahara reach 45 degrees centigrade on many afternoons. It is, in other words, a gigantic natural storehouse of solar energy.

B. A few years ago, scientists began to calculate just how much energy the Sahara holds. They were astonished at the answer. In theory, a 90,600 square kilometre chunk of the Sahara - smaller than Portugal and a little over 1% of its total area - could yield the same amount of electricity as all the world's power plants combined. A smaller square of 15,500 square kilometres - about the size of Connecticut - could provide electricity for Europe's 500 million people. 'I admit I was sceptical until I did the calculations myself,' says Michael Pawlyn, director of Exploration Architecture, one of three British environmental companies comprising the Sahara Forest Project, which is testing solar plants in Oman and the United Arab Emirates. Pawlyn calls the Sahara's potential 'staggering'.

C. At the moment, no one is proposing the creation of a solar power station the size of a small country. But a relatively well-developed technology exists, which proponents say could turn the Sahara's heat and sunlight into a major source of electricity - Concentrating Solar Power (CSP). Unlike solar panels, which convert sunlight directly into electricity, CSP utilises mirrors which focus light on water pipes or boilers to produce very hot steam to operate the turbines of generators. Small CSP plants have produced power in California's Mojave Desert since the 1980s. The Sahara Forest Project proposes building CSP plants in areas below sea level (the Sahara has several such depressions) so that sea water can flow into them. This water would then be purified and used for powering turbines and washing dust off the mirrors. Waste water would then supply irrigation to areas around the stations, creating lush oases - hence the 'forest' in the group's name.

D. But producing Significant quantities of electricity means building huge arrays of mirrors and pipes across hundreds of miles of remote desert, which is expensive. Gerry Wolff, an engineer who heads DESERTEC, an international consortium of solar-power scientists, says they have estimated it will cost about $59 billion to begin transmitting power from the Sahara by 2020.

E. Building plants is just part of the challenge. One of the drawbacks to CSP technology is that it works at maximum efficiency only in sunny, hot climates - and deserts tend to be distant from population centres. To supply Europe with 20% of its electricity needs, more than 19,300 kilometres of cables would need to be laid under the Mediterranean, says Gunnar Asplund, head of HVDC research at ABB Power Technologies in Ludvika, Sweden. Indeed, to use

renewable sources of power, including solar, wind and tidal, Europe will need to build completely new electrical grids. That's because existing infrastructures, built largely for the coal-fired plants that supply 80% of Europe's power, would not be suitable for carrying the amount of electricity generated by the Sahara. Germany's government-run Aerospace Centre, which researches energy, estimates that replacing those lines could raise the cost of building solar plants in the Sahara and sending significant amounts of power to Europe to about $485 billion over the next 40 years. Generous government subsidies will be needed. 'Of course it costs a lot of money,' says Asplund. 'It's a lot cheaper to burn coal than to make solar power in the Sahara.'

F. Meanwhile, some companies are getting started. Seville engineering company Abengoa is building one solar - thermal plant in Algeria and another in Morocco, while a third is being built in Egypt by a Spanish-Japanese joint venture. The next step will be to get cables in place. Although the European Parliament has passed a law that aids investors who help the continent reach its goal of getting 20% of its power from renewable energy by 2020, it could take years to create the necessary infrastructure.

G. Nicholas Dunlop, secretary-general of the London-based NGO e-Parliament, thinks companies should begin transmitting small amounts of solar power as soon as the North African plants begin operating, by linking a few cable lines under the Med. 'I call it the Lego method,' he says. 'Build it piece by piece.' If It can be shown that power from the Sahara can be produced profitably, he says, companies and governments will soon jump in. If they do,

perhaps airplane passengers flying across the Sahara will one day count the mirrors and patches of green instead of staring at sand.

adapted from Time Magazine

*terra incognita - Latin, meaning 'an unknown land'

The reading passage has seven paragraphs, ***A-G****.*

Which paragraph contains the following information? Write the correct letter, ***A-G****.*

NB You may use any letter more than once.

1. a mention of systems which could not be used
2. estimates of the quantity of power the Sahara could produce
3. a suggestion for how to convince organisations about the Sahara's potential
4. a short description of the Sahara at present
5. a comparison of the costs of two different energy sources

3. Bài tập 3

THE BURDEN OF THIRST

By Tina Rosenberg

Millions of women carry water long distances. If they had a tap by their door, whole societies would be transformed.

A. Aylito Binayo's feet know the mountain. Even at four in the morning, she can run down the rocks to the river by starlight alone and climb the steep mountain back up to her village with a container of water on her back. She has made this journey three times a day since she was a small child.

So has every other woman in her village of Foro, in the Konso district of south-western Ethiopia in Africa. Binayo left school when she was eight years old, in part because she had to help her mother fetch water from the Toiro River. The water is unsafe to drink; every year that the drought continues, the river carries less water, and its flow is reduced. But it is the only water Foro has ever had.

B. In developed parts of the world, people turn on a tap and out pours abundant, clean water. Yet nearly 900 million people in the world have no access to clean water. Furthermore, 2.5 billion people have no safe way to get rid of human waste. Polluted water and lack of proper hygiene cause disease and kill 3.3 million people around the world annually, most of them children. In southern Ethiopia and in northern Kenya, a lack of rain over the past few years has made even dirty water hard to find. But soon, for the first time, things are going to change.

C. Bringing clean water close to villagers' homes is the key to the problem. Communities where clean water becomes accessible and plentiful are transformed. All the hours previously spent hauling water can be used to cultivate more crops, raise more animals or even start a business. Families spend less time sick or caring for family members who are unwell. Most important, not having to collect water means girls can go to school and get jobs. The need to fetch water for the family, or to take care of younger siblings while their mother goes, usually prevents them ever having this experience.

D. But the challenges of bringing water to remote villages like those in Konso are overwhelming. Locating water underground and then reaching it by means of deep wells requires geological expertise and expensive, heavy machines. Abandoned wells and water projects litter the villages of Konso. In similar villages around the developing world, the biggest problem with water schemes is that about half of them break down soon after the groups that built them move on. Sometimes technology is used that can't be repaired locally, or spare parts are available only in the capital.

E. Today, a UK-based international non-profit organization called WaterAid is tackling the job of bringing water to the most remote villages of Konso. Their approach combines technologies proven to last - such as building a sand dam to capture and filter rainwater that would otherwise drain away. But the real innovation is that WaterAid believes technology is only part of the solution. Just as important is involving the local community in designing, building and maintaining new water projects. Before beginning any project, WaterAid asks the community to create a WASH (water, sanitation, hygiene) committee of

seven people. The committee works with WaterAid to plan projects and involve the village in construction. Then it maintains and runs the project.

F. The people of Konso, who grow their crops on terraces they have dug into the sides of mountains, are famous for hard work. In the village of Orbesho, resident even constructed a road themselves so that drilling machinery could come in. Last summer, their pump, installed by the river, was being motorised to push its water to a newly built reservoir on top of a nearby mountain. From there, gravity will carry it down in pipes to villages on the other side of the mountain. Residents of those villages have each given some money to help fund the project. They have made concrete and collected stones for the structures. Now they are digging trenches to lay pipes. If all goes well, Aylito Binayo will have a tap with safe water just a three-minute walk from her front door.

Adapted from National Geographic magazine

*Choose **TWO** letters, A-E.*

*Which **TWO** of these activities were performed by the villagers of Orbesho?*

A. building a transport route
B. digging a reservoir
C. gathering building materials
D. making pipes
E. fitting taps

4. Bài tập 4

LEARNING COLOR WORDS

Young children struggle with color concepts, and the reason for this may have something to do with how we use the words that describe them.

A. In the course of the first few years of their lives, children who are brought up in English- speaking homes successfully master the use of hundreds of words. Words for objects, actions, emotions, and many other aspects of the physical world quickly become part of their infant repertoire. For some reason, however, when it comes to learning color words, the same children perform very badly. At the age of four months, babies can distinguish between basic color categories. Yet it turns out they do this in much the same way as blind children. "Blue" and "yellow" appear in older children's expressive language in answer to questions such as "What color is this?", but their mapping of objects to individual colors is haphazard and interchangeable. If shown a blue cup and asked about its color, typical two-year-olds seem as likely to come up with "red" as "blue." Even after hundreds of training trials, children as old as four may still end up being unable to accurately sort objects by color.

B. In an effort to work out why this is, cognitive scientists at Stanford University in California hypothesized that children's incompetence at color-word learning may be directly linked to the way these words are used in English. While word order for color adjectives varies, they are used overwhelmingly in pre-nominal position (e.g. "blue cup"); in other words, the adjective comes before the noun it is describing. This is in contrast to post-nominal position (e.g. "The cup is blue") where the adjective comes after the noun. It seems that the difficulty children have may not be caused by any unique property of color, or indeed, of

the world. Rather, it may simply come down to the challenge of having to make predictions from color words to the objects they refer to, instead of being able to make predictions from the world of objects to the color words.

To illustrate, the word "chair" has a meaning that applies to the somewhat varied set of entities in the world that people use for sitting on. Chairs have features, such as arms and legs and backs, that are combined to some degree in a systematic way; they turn up in a range of chairs of different shapes, sizes, and ages. It could be said that children learn to narrow down the set of cues that make up a chair and in this way they learn the concept associated with that word. On the other hand, color words tend to be unique and not bound to other specific co-occurring features; there is nothing systematic about color words to help cue their meaning. In the speech that adults direct at children, color adjectives occur pre-nominally ("blue cup") around 70 percent of the time. This suggests that most of what children hear from adults will, in fact, be unhelpful in learning what color words refer to.

C. To explore this idea further, the research team recruited 41 English children aged between 23 and 29 months and carried out a three-phase experiment. It consisted of a pre-test, followed by training in the use of color words, and finally a post-test that was identical to the pre-test. The pre- and post-test materials comprised six objects that were novel to the children. There were three examples of each object in each of three colors—red, yellow, and blue. The objects were presented on trays, and in both tests, the children were asked to pick out objects in response to requests in which the color word was either a pre nominal ("Which is the red one?") or a post-nominal ("Which one is red?").

In the training, the children were introduced to a "magic bucket" containing five sets of items familiar to 26-month-olds (balls, cups, crayons, glasses, and toy bears) in each of the three colors. The training was set up so that half the

children were presented with the items one by one and heard them labelled with color words used pre-nominally ("This is a red crayon"), while the other half were introduced to the same items described with a post-nominal color word ("This crayon is red"). After the training, the children repeated the selection task on the unknown items in the post-test. To assess the quality of children's understanding of the color words, and the effect of each type of training, correct choices on items that were consistent across the pre- and post-tests were used to measure children's color knowledge.

D. Individual analysis of pre- and post-test data, which confirmed parental vocabulary reports, showed the children had at least some knowledge of the three colour words: they averaged two out of three correct choices in response to both pre- and post-nominal question types, which, it has been pointed out, is better than chance. When children's responses to the question types were assessed independently, performance was at its most consistent when children were both trained and tested on post-nominal adjectives, and worst when trained on pre-nominal adjectives and tested on post-nominal adjectives. Only children who had been trained with post- nominal color-word presentation and then tested with post-nominal question types were significantly more accurate than chance. Comparing the pre- and post-test scores across each condition revealed a significant decline in performance when children were both pre- and post-tested with questions that placed the color words pre-nominally.

As predicted, when children are exposed to color adjectives in post-nominal position, they learn them rapidly (after just five training trials per color); when they are presented with them pre-nominally, as English overwhelmingly tends to do, children show no signs of learning.

*Choose **TWO** letters, **A-E**.*

Questions 10-11

Which TWO of the following statements about the experiment are true?

A. The children were unfamiliar with the objects used in the pre- and post-test.

B. The children had to place the pre- and post-test objects onto coloured trays.

C. The training was conducted by dividing the children into two groups.

D. Pre-nominal questions were used less frequently than post-nominal questions in the training.

E. The researchers were looking for inconsistencies in children's knowledge of word order.

Questions 12-13

Which TWO of the following outcomes are reported in the passage?

A. Average results contradicted parental assessment of children's knowledge.

B. Children who were post-tested using post-nominal adjectives performed well, regardless of the type of training.

C. Greatest levels of improvement were achieved by children who were trained and post-tested using post-nominal adjectives.

D. Some children performed less well in the post-test than in the pre-test.

E. Some children were unable to accurately name any of the colours in the pre and post-tests.

5. Bài tập 5

ORGANIC FOOD: WHY?

By Rob Lyons and Jan Bowman

Today, many governments are promoting organic or natural farming methods that avoid the use of pesticides and other artificial products. The aim is to show that they care about the environment and about people's health. But is this the right approach?

A. Europe is now the biggest market for organic food in the world, expanding by 25 percent a year over the past 10 years. So what is the attraction of organic food for some people? The really important thing is that organic sounds more ‘natural’. Eating organic is a way of defining oneself as natural, good, caring, different from the junk-food-scoffing masses. As one journalist puts it: It feels closer to the source, the beginning, the start of things.' The real desire is to be somehow close to the soil, to Mother Nature.

B. Unlike conventional farming, the organic approach means farming with natural, rather than man-made, fertilisers and pesticides. Techniques such as crop rotation improve soil quality and help organic farmers compensate for the absence of man-made chemicals. As a method of food production, organic is, however, inefficient in its use of labour and land; there are severe limits to how much food can be produced. Also, the environmental benefits of not using artificial fertiliser are tiny compared with the amount of carbon dioxide

emitted by transporting food (a great deal of Britain's organic produce is shipped in from other countries and transported from shop to home by car).

C. Organic farming is often claimed to be safer than conventional farming - for the environment and for consumers. Yet studies into organic farming worldwide continue to reject this claim. An extensive review by the UK Food Standards Agency found that there was no statistically significant difference between organic and conventional crops. Even where results indicated there was evidence of a difference, the reviewers found no sign that these differences would have any noticeable effect on health.

D. The simplistic claim that organic food is more nutritious than conventional food was always likely to be misleading. Food is a natural product, and the health value of different foods will vary for a number of reasons, including freshness, the way the food is cooked, the type of soil it is grown in, the amount of sunlight and rain crops have received, and so on. Likewise, the flavour of a carrot has less to do with whether it was fertilised with manure or something out of a plastic sack than with the variety of carrot and how long ago it was dug up. The differences created by these things are likely to be greater than any differences brought about by using an organic or non-organic system of production. Indeed, even some 'organic' farms are quite different from one another.

E. The notion that organic food is safer than 'normal' food is also contradicted by the fact that many of our most common foods are full of natural toxins. Parsnips cause blisters on the skin of agricultural workers. Toasting bread

creates carcinogens. As one research expert says: 'People think that the more natural something is, the better it is for them. That is simply not the case. In fact, it is the opposite that is true: the closer a plant is to its natural state, the more likely it is that it will poison you. Naturally, many plants do not want to be eaten, so we have spent 10,000 years developing agriculture and breeding out harmful traits from crops.'

F. Yet educated Europeans are more scared of eating traces of a few, strictly regulated, man-made chemicals than they are of eating the ones that nature created directly. Surrounded by plentiful food, it's not nature they worry about, but technology. Our obsessions with the ethics and safety of what we eat - concerns about antibiotics in animals, additives in food, GM crops and so on - are symptomatic of a highly technological society that has little faith in its ability to use this technology wisely. In this context, the less something is touched by the human hand, the healthier people assume it must be.

G. Ultimately, the organic farming movement is an expensive luxury for shoppers in well-manicured Europe. For developing parts of the world, it is irrelevant. To European environmentalists, the fact that organic methods require more labour and land than conventional ones to get the same yields is a good thing; to a farmer in rural Africa, it is a disaster. Here, land tends to be so starved and crop yields so low that there simply is not enough organic matter to put back into the soil. Perhaps the focus should be on helping these countries to gain access to the most advanced farming techniques, rather than going back to basics.

Adapted from articles in Spiked

*Choose **TWO** letters, **A-E.***

Question 8-9

Which TWO of the following points does the writer mention in connection with organic farming?

A. the occasional use of pesticides

B. using the same field for different crops

C. testing soil quality

D. reducing the number of farm workers

E. the production of greenhouse gases

Questions 10-11

According to the writer, which TWO factors affect the nutritional content of food?

A. who prepares the food

B. the weather conditions during growth

C. where the food has been stored

D. when the plants were removed from the earth

E. the type of farm the food was grown on

Questions 12-13

Which TWO negative aspects of organic farming does the writer mention?

A. Consumers complain about the extra cost.

B. Organic food may make people ill.

C. Farm workers have to be specially trained.

D. It requires too much technological expertise.

E. It is not possible in some countries.

6. Bài tập 6

HUMPBACK WHALE BREAKS MIGRATION RECORD

A whale surprises researchers with her journey.

A lone humpback whale travelled more than 9,800 kilometres from breeding areas in Brazil to those in Madagascar, setting a record for the longest mammal migration ever documented.

Humpback whales (Megaptera novaeangliae) are known to have some of the longest migration distances of all mammals, and this huge journey is about 400 kilometres farther than the previous humpback record. The finding was made by Peter Stevick, a biologist at the College of the Atlantic in Bar Harbor, Maine. The whale's journey was unusual not only for its length, but also because it travelled across almost 90 degrees of longitude from west to east. Typically, humpbacks move in a north-south direction between cold feeding areas and warm breeding grounds - and the longest journeys which have been recorded until now have been between breeding and feeding sites.

The whale, a female, was first spotted off the coast of Brazil, where researchers photographed its tail fluke and took skin samples for chromosome testing to determine the animal's sex. Two years later, a tourist on a whale-watching boat snapped a photo of the humpback near Madagascar.

To match the two sightings, Stevick's team used an extensive international catalogue of photographs of the undersides of tail flukes, which have distinctive markings. Researchers routinely compare the markings in each new photograph to those in the archive.

The scientists then estimated the animal's shortest possible route: an arc skirting the southern tip of South Africa and heading north-east towards Madagascar. The minimum distance is 9,800 kilometres, says Stevick, but this is likely to be an underestimate, because the whale probably took a detour to feed on krill in the Southern Ocean near Antarctica before reaching its destination.

Most humpback-whale researchers focus their efforts on the Northern Hemisphere because the Southern Ocean near the Antarctic is a hostile environment and it is hard to get to, explains Rochelle Constantine, who studies the ecology of humpback whales at the University of Auckland in New Zealand. But, for whales, oceans in the Southern Hemisphere are wider and easier to travel across, says Constantine. Scientists will probably observe more long-distance migrations in the Southern Hemisphere as satellite tracking becomes increasingly common, she adds.

Daniel Palacios, an oceanographer at the University of Hawaii at Manoa, says that the record-breaking journey could indicate that migration patterns are shifting as populations begin to recover from near-extinction and the population increases. But the reasons why the whale did not follow the usual migration routes remain a mystery. She could have been exploring new habitats, or simply have lost her way. 'We generally think of humpback whales as very well studied, but then they surprise us with things like this,' Palacios says. 'Undoubtedly there are a lot of things we still don't know about whale migration.'

By Janelle Weaver, published online in Nature

Question 1-7

1. What TWO aspects of the whale's journey surprised researchers?

A. the destination

B. the direction

C. the distance

D. the reason

E. the season

2. The passage mentions reasons why whales generally migrate. What TWO reasons are given?

A. to avoid humans

B. to be safe

C. to eat

D. to keep warm

E. to produce young

3. What TWO methods did researchers use to record the identity of the whale near Brazil?

A. They analysed part of the whale's body.

B. They marked its tail.

C. They made notes of its behaviour.

D. They recorded the sounds it made.

E. They took a picture.

4. The passage mentions places the whale may have passed close to on its journey. Which TWO places may the whale have passed?

A. Antarctica

B. Hawaii

C. Maine

D. New Zealand

E. South Africa

5. The passage says that more research is done in the Northern Hemisphere. Which TWO reasons are given for this?

A. It contains more whales.

B. It has friendlier surroundings.

C. There are more samples available.

D. It is easier to reach.

E. It contains smaller whales.

6. The passage suggests why the whale made a different journey from usual. Which TWO reasons does it suggest?

A. She did not know where she was going.

B. She did not want to breed.

C. She wanted to escape a danger.

D. She was looking for a new place to live.

E. She was recovering from an illness.

7. Which TWO methods of finding out where whales migrate are mentioned in the passage?

A. attaching radio transmitters

B. comparing pictures taken in different place

C. following them in boats

D. placing cameras in key positions

E. following their movements from space.

7. Bài tập 7

THE TRUTH ABOUT LYING

By Dan Roberts

Over the years Richard Wiseman has tried to unravel the truth about deception - investigating the signs that give away a liar.

A. In the 1970s, as part of a large-scale research programme exploring the area of Interspecies communication, Dr Francine Patterson from Stanford University attempted to teach two lowland gorillas called Michael and Koko a simplified version of Sign Language. According to Patterson, the great apes were capable of holding meaningful conversations, and could even reflect upon profound topics, such as love and death. During the project, their trainers believe they uncovered instances where the two gorillas' linguistic skills seemed to provide reliable evidence of intentional deceit. In one example, Koko broke a toy cat, and then signed to indicate that the breakage had been caused by one of her trainers. In another episode, Michael ripped a jacket belonging to a trainer and, when asked who was responsible for the incident, signed ‘Koko’. When the trainer expressed some scepticism, Michael appeared to change his mind, and indicated that Dr Patterson was actually responsible, before finally confessing.

B. Other researchers have explored the development of deception in children. Some of the most interesting experiments have involved asking youngsters not to take a peek at their favourite toys. During these studies, a child is led into a laboratory and asked to face one of the walls. The experimenter then explains that he is going to set up an elaborate toy a few feet behind them. After setting up the toy, the experimenter says that he has to leave the laboratory, and asks

the child not to turn around and peek at the toy. The child is secretly filmed by hidden cameras for a few minutes, and then the experimenter returns and asks them whether they peeked. Almost all three-year-olds do, and then half of them lie about it to the experimenter. By the time the children have reached the age of five, all of them peek and all of them lie. The results provide compelling evidence that lying starts to emerge the moment we learn to speak.

C. So what are the tell-tale signs that give away a lie? In 1994, the psychologist Richard Wiseman devised a large-scale experiment on a TV programme called *Tomorrow's World*. As part of the experiment, viewers watched two interviews in which Wiseman asked a presenter in front of the cameras to describe his favourite film. In one interview, the presenter picked *Some Like It Hot* and he told the truth; in the other interview, he picked *Gone with the Wind* and lied. The viewers were then invited to make a choice - to telephone in to say which film he was lying about. More than 30,000 calls were received, but viewers were unable to tell the difference and the vote was a 50/50 split. In similar experiments, the results have been remarkably consistent - when it comes to lie detection, people might as well simply toss a coin. It doesn't matter if you are male or female, young or old; very few people are able to detect deception.

D. Why is this? Professor Charles Bond from the Texas Christian University has conducted surveys into the sorts of behaviour people associate with lying. He has interviewed thousands of people from more than 60 countries, asking them to describe how they set about telling whether someone is lying. People's answers are remarkably consistent. Almost everyone thinks liars tend to avert

their gaze, nervously wave their hands around and shift about in their seats. There is, however, one small problem. Researchers have spent hour upon hour carefully comparing films of liars and truth-tellers. The results are clear. Liars do not necessarily look away from you; they do not appear nervous and move their hands around or shift about in their seats. People fail to detect lies because they are basing their opinions on behaviours that are not actually associated with deception.

E. So what are we missing? It is obvious that the more information you give away, the greater the chances of some of it coming back to haunt you. As a result, liars tend to say less and provide fewer details than truth-tellers. Looking back at the transcripts of the interviews with the presenter, his lie about *Gone with the Wind* contained about 40 words, whereas the truth about *Some Like It Hot* was nearly twice as long. People who lie also try psychologically to keep a distance from their falsehoods, and so tend to include fewer references to themselves in their stories. In his entire interview about *Gone with the Wind*, the presenter only once mentioned how the film made him feel, compared with the several references to his feelings when he talked about *Some Like It Hot*.

F. The simple fact is that the real clues to deceit are in the words that people use, not the body language. So do people become better lie detectors when they listen to a liar, or even just read a transcript of their comments? The interviews with the presenter were also broadcast on radio and published in a newspaper, and although the lie-detecting abilities of the television viewers were no better than chance, the newspaper readers were correct 64% of the time, and the radio listeners scored an impressive 73% accuracy rate.

The reading passage has six paragraphs, A-F. Choose the correct heading for each paragraph from the list of headings below.

List of headings

i. Some of the things liars really do

ii. When do we begin to lie?

iii. How wrong is it to lie?

iv. Exposing some false beliefs

v. Which form of communication best exposes a lie?

vi. Do only humans lie?

vii. Dealing with known liars

viii. A public test of our ability to spot a lie

1. Paragraph **A**
2. Paragraph **B**
3. Paragraph **C**
4. Paragraph **D**
5. Paragraph **E**
6. Paragraph **F**

8. Bài tập 8

THE BURDEN OF THIRST

Millions of women carry water long distances. If they had a tap by their door, whole societies would be transformed.

By Tina Rosenberg

A. Aylito Binayo's feet know the mountain. Even at four in the morning, she can run down the rocks to the river by starlight alone and climb the steep mountain back up to her village with a container of water on her back. She has made this journey three times a day since she was a small child.

So has every other woman in her village of Foro, in the Konso district of south-western Ethiopia in Africa. Binayo left school when she was eight years old, in part because she had to help her mother fetch water from the Toiro River. The water is unsafe to drink; every year that the drought continues, the river carries less water, and its flow is reduced. But it is the only water Foro has ever had.

B. In developed parts of the world, people turn on a tap and out pours abundant, clean water. Yet nearly 900 million people in the world have no access to clean water. Furthermore, 2.5 billion people have no safe way to get rid of human waste. Polluted water and lack of proper hygiene cause disease and kill 3.3 million people around the world annually, most of them children. In southern Ethiopia and in northern Kenya, a lack of rain over the past few years has made even dirty water hard to find. But soon, for the first time, things are going to change.

C. Bringing clean water close to villagers' homes is the key to the problem. Communities where clean water becomes accessible and plentiful are transformed. All the hours previously spent hauling water can be used to

cultivate more crops, raise more animals or even start a business. Families spend less time sick or caring for family members who are unwell. Most important, not having to collect water means girls can go to school and get jobs. The need to fetch water for the family, or to take care of younger siblings while their mother goes, usually prevents them ever having this experience.

D. But the challenges of bringing water to remote villages like those in Konso are overwhelming. Locating water underground and then reaching it by means of deep wells requires geological expertise and expensive, heavy machines. Abandoned wells and water projects litter the villages of Konso. In similar villages around the developing world, the biggest problem with water schemes is that about half of them break down soon after the groups that built them move on. Sometimes technology is used that can't be repaired locally, or spare parts are available only in the capital.

E. Today, a UK-based international non-profit organization called WaterAid is tackling the job of bringing water to the most remote villages of Konso. Their approach combines technologies proven to last - such as building a sand dam to capture and filter rainwater that would otherwise drain away. But the real innovation is that WaterAid believes technology is only part of the solution. Just as important is involving the local community in designing, building and maintaining new water projects. Before beginning any project, WaterAid asks the community to create a WASH (water, sanitation, hygiene) committee of seven people. The committee works with WaterAid to plan projects and involve the village in construction. Then it maintains and runs the project.

F. The people of Konso, who grow their crops on terraces they have dug into the sides of mountains, are famous for hard work. In the village of Orbesho, resident even constructed a road themselves so that drilling machinery could come in. Last summer, their pump, installed by the river, was being motorised

to push its water to a newly built reservoir on top of a nearby mountain. From there, gravity will carry it down in pipes to villages on the other side of the mountain. Residents of those villages have each given some money to help fund the project. They have made concrete and collected stones for the structures. Now they are digging trenches to lay pipes. If all goes well, Aylito Binayo will have a tap with safe water just a three-minute walk from her front door.

Adapted from National Geographic magazine

Questions 1-6

*The reading passage has six paragraphs, **A-F**.*

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

List of Headings

i. Why some plans have failed

ii. A rural and urban problem

iii. A possible success

iv. Explaining a new management style

v. Some relevant statistics

vi. A regular trip for some people

vii. Treating people for disease

viii. How water can change people's lives

1. Paragraph **A**
2. Paragraph **B**
3. Paragraph **C**
4. Paragraph **D**
5. Paragraph **E**
6. Paragraph **F**