

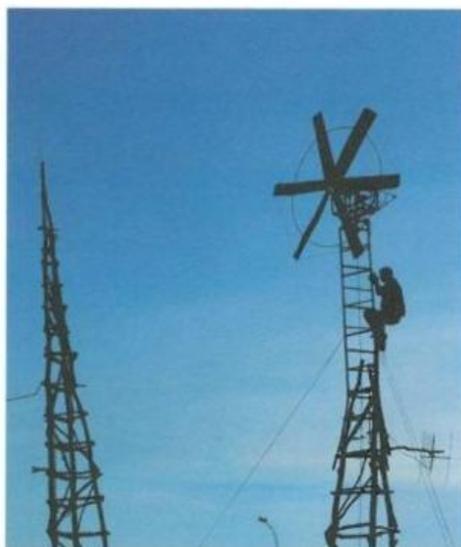
## IELTS READING PROGRESS TEST 1

### READING PASSAGE 1

You should spend about 20 minutes on Questions 1-13, which are based on Reading Passage 1 below.

#### WILLIAM KAMKWAMBA

*At only 14 years old, William Kamkwamba built a series of windmills that could generate electricity in his African village, Masitala, in Malawi, south-eastern Africa.*



In 2002, William Kamkwamba had to drop out of school, as his father, a maize and tobacco farmer, could no longer afford his school fees. But despite this setback, William was determined to get his education. He began visiting a local library that had just opened in his old primary school, where he discovered a tattered science book. With only a rudimentary grasp of English, he taught himself basic physics - mainly by studying photos and diagrams. Another book he found there featured windmills on the cover and inspired him to try and build his own.

He started by constructing a small model. Then, with the help of a cousin and friend, he spent many weeks searching scrap yards and found old tractor fans, shock absorbers, plastic pipe and bicycle parts, which he used to build the real thing.

For windmill blades, William cut some bath pipe in two lengthwise, then heated the pieces over hot coals to press the curled edges flat. To bore holes into the blades, he stuck a nail through half a corn cob, heated the metal red and twisted it through the blades. It took three hours to repeatedly heat the nail and bore the holes. He attached the blades to a tractor fan using proper nuts and bolts and then to the back axle of a bicycle. Electricity was generated through the bicycle dynamo. When the wind blew the blades, the bike chain spun the bike wheel, which charged the dynamo and sent a current through wire to his house.

What he had built was a crude machine that produced 12 volts and powered four lights. When it was all done, the windmill's wingspan measured more than eight feet and sat on top of a rickety tower 15 feet tall that swayed violently in strong gales. He eventually replaced the tower with a sturdier one that stands 39 feet and built a second machine that watered a family garden.

The windmill brought William Kamkwamba instant local fame, but despite his accomplishment, he was still unable to return to school. However, news of his *magetsi a mphopo* - electric wind - spread beyond Malawi, and eventually things began to change. An education official, who had heard news of the windmill, came to visit his village and was amazed to learn that William had been out of school for five years. He arranged for him to attend secondary school at the government's expense and brought journalists to the farm to see the windmill. Then a story published in the Malawi Daily Mail caught the attention of bloggers, which in turn caught the attention of the organisers for the Technology Entertainment and Design conference.

In 2007, William spoke at the TED Global conference in Tanzania and got a standing ovation. Businessmen stepped forward with offers to fund his education and projects, and with money donated by them, he was able to put his cousin and several friends back into school and pay for some medical needs of his family. With the donation, he also drilled a borehole for a well and water pump in his village and installed drip irrigation in his father's fields.

The water pump has allowed his family to expand its crops. They have abandoned tobacco and now grow maize, beans, soybeans, potatoes and peanuts. The windmills have also brought big lifestyle and health changes to the other villagers. The village has changed a lot, William says. "Now, the time that they would have spent going to fetch water, they are using for doing other things. And also the water they are drinking is clean water, so there is less disease.' The villagers have also stopped using kerosene and can use the money previously spent on fuel to buy other things.

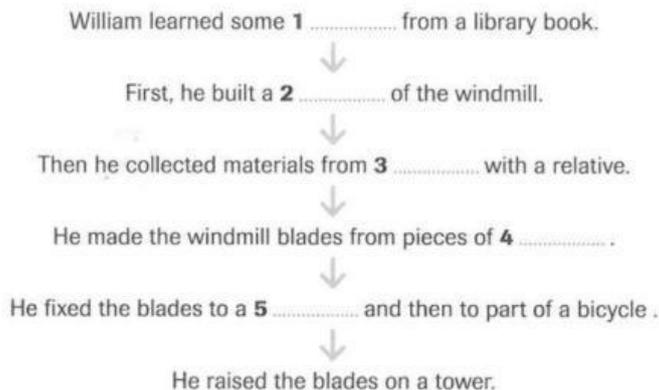
William Kamkwamba's example has inspired other children in the village to pursue science. William says they now see that if they put their mind to something, they can achieve it. 'It has changed the way people think,' he says.

**Questions 1-5**

Complete the flow chart below.

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

**BUILDING THE WINDMILL**



**Questions 6-10**

Do the following statements agree with the information given in Reading Passage 1?

Write

- TRUE**                    if the statement agrees with the information
- FALSE**                 if the statement contradicts the information
- NOT GIVEN**         if there is no information on this

6. William used the electricity he created for village transport.
7. At first, William's achievement was ignored by local people.
8. Journalists from other countries visited William's farm.
9. William used money he received to improve water supplies in his village.
10. The health of the villagers has improved since the windmill was built.

**Questions 11-13**

Answer the questions below.

Use **NO MORE THAN ONE WORD** and/or a **NUMBER** from the passage for each answer.

11. How tall was the final tower that William built?
12. What did the villagers use for fuel before the windmill was built?
13. What school subject has become more popular in William's village?

**READING PASSAGE 2**

You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.

**DEFORESTATION IN THE 21<sup>st</sup> CENTURY**

*When it comes to cutting down trees, satellite data reveals a shift from the patterns of the past.*

**A** Globally, roughly 13 million hectares of forest are destroyed each year. Such deforestation has long been driven by farmers desperate to earn a living or by loggers building new roads into pristine forests. But now new data appears to show that big, block clearings that reflect industrial deforestation have come to dominate, rather than these smaller-scale efforts that leave behind long narrow swaths of cleared land. Geographer Ruth DeFries of Columbia University and her colleagues used satellite images to analyse tree-clearing in countries ringing the tropics, representing 98 per cent of all remaining tropical forests. Instead of the usual 'fishbone' signature of deforestation from small-scale operations, large, chunky blocks of cleared land reveal a new motive for cutting down wood.

**B** In fact, a statistical analysis of 41 countries showed that forest loss rates were most closely linked with urban population growth and agricultural exports in the early part of the 21st century - even overall population growth was not as strong an influence. 'In previous decades, deforestation was associated with planned colonization, resettlement schemes in local areas and farmers' clearing land to grow food for subsistence,' DeFries says. 'What we're seeing now is a shift from small-scale farmers driving deforestation to distant demands from urban growth, agricultural trade and exports being more important drivers.'

**C** In other words, the increasing urbanization of the developing world, as populations leave rural areas to concentrate in booming cities, is driving deforestation, rather than containing it. Coupled with this there is an ongoing increase in consumption in the developed world of products that have an impact on forests, whether furniture, shoe leather or chicken feed. 'One of the really striking characteristics of this century is urbanisation and rapid urban growth in the developing world,' DeFries says. "People in cities need to eat." "There's no surprise there," observes Scott Poynton, executive director of the Tropical Forest Trust, a Switzerland-based organisation that helps businesses implement and manage sustainable forestry in countries such as Brazil, Congo and Indonesia. "It's not about people chopping down trees. It's all the people in New York, Europe and elsewhere who want cheap products, primarily food."

**D** Defries argues that in order to help sustain this increasing urban and global demand, agricultural productivity will need to be increased on lands that have already been cleared. This means that better crop varieties or better management techniques will need to be used on the many degraded and abandoned lands in the tropics. And the Tropical Forest Trust is building management systems to keep illegally harvested wood from ending up in, for example, deck chairs, as well as expanding its efforts to look at how to reduce the 'forest footprint' of agricultural products such as palm oil. Poynton says, 'The point is to give forests value as forests, to keep them as forests and give them a use as forests. They're not going to be locked away as national parks. That's not going to happen.'

**E** But it is not all bad news. Halts in tropical deforestation have resulted in forest regrowth in some areas where tropical lands were previously cleared. And forest clearing in the Amazon, the world's largest tropical forest, dropped from roughly 1.9 million hectares a year in the 1990s to 1.6 million hectares a year over the last decade, according to the Brazilian government. 'We know that deforestation has slowed down in at least the Brazilian Amazon, DeFries says. 'Every place is different. Every country has its own particular situation, circumstances and driving forces.

**F** Regardless of this, deforestation continues, and cutting down forests is one of the largest sources of greenhouse gas emissions from human activity - a double blow that both eliminates a biological system to suck up CO<sub>2</sub> and creates a new source of greenhouse gases in the form of decaying plants. The United Nations Environment Program estimates that slowing such deforestation could reduce some so billion metric tons of CO<sub>2</sub> or more than a year of global emissions. Indeed, international climate negotiations continue to attempt to set up a system to encourage this, known as the UN Development Programme's fund for reducing emissions from deforestation and forest degradation in developing countries (REDD). If policies like REDD, are to be effective, we need to understand what the driving forces are behind deforestation, DeFries argues. This is particularly important in light of new pressures that are on the horizon: the need to reduce our dependence on fossil fuels and find alternative power sources, particularly for private cars, is forcing governments to make products such as biofuels more readily accessible. This will only exacerbate the pressures on tropical forests.

**G** But millions of hectares of pristine forest remain to protect, according to this new analysis from Columbia University. Approximately 60 per cent of the remaining tropical forests are in countries or areas that currently have little agricultural trade or urban growth. The amount of forest area in places like central Africa, Guyana and Suriname, DeFries notes, is huge. "There's a lot of forest that has not yet faced these pressures."

### Questions 14-19

Reading Passage 2 has seven paragraphs, A-G.

Which paragraph contains the following information?

*You may use any letter more than once.*

- 14 two ways that farming activity might be improved in the future
- 15 reference to a fall in the rate of deforestation in one area
- 16 the amount of forest cut down annually
- 17 how future transport requirements may increase deforestation levels
- 18 a reference to the typical shape of early deforested areas
- 19 key reasons why forests in some areas have not been cut down

**Questions 20-21**

Choose *TWO* letters, A-E.

Which *TWO* of these reasons do experts give for current patterns of deforestation?

- A to provide jobs
- B to create transport routes
- C to feed city dwellers
- D to manufacture low-budget consumer items
- E to meet government targets

**Questions 22 - 23**

Choose *TWO* letters, A-E.

The list below gives some of the impacts of tropical deforestation.

Which *TWO* of these results are mentioned by the writer of the text?

- A local food supplies fall
- B soil becomes less fertile
- C some areas have new forest growth
- D some regions become uninhabitable
- E local economies suffer

**Questions 24 - 26**

Complete the sentences below.

Choose *NO MORE THAN TWO WORDS* and/or *A NUMBER* from the passage for each answer.

24. The expression "\_\_\_\_\_ " is used to assess the amount of wood used in certain types of production.

25. Greenhouse gases result from the \_\_\_\_\_ that remain after trees have been cut down.

26. About \_\_\_\_\_ of the world's tropical forests have not experienced deforestation yet.