



## TASK 1 – LONG READING

Long Reading: Read this text about the fantastic invention a man has made in Bangladesh and then answer the 15 questions you will find in page 2.

### How Bangladeshi inventors are making eco-friendly air conditioners from plastic bottles

#### Paragraph 1

What can you make with old plastic bottles? A vase? A flowerpot? ... an air-conditioning unit? Believe it or not, you can. Inventor Ashis Paul came up with an innovative way to draw cool air into homes using plastic bottles. We are a flood-prone nation, so in rural Bangladesh, most people build their homes out of tin, instead of mud. About 70% of Bangladesh's population lives in these homes. But the problem with these tin huts is that they get unbearably hot in the summer, especially in northern and central Bangladesh. I've been in these huts. It's like being in a sauna in the Sahara. This is where Ashis Paul realised that something must be made in order to ease these hard summers but also with low investment.

#### Paragraph 2

He started thinking about ways to bring relief to these people. He was turning it over in his mind when one day, he overheard his daughter's physics tutor explaining to her how gas cools when it expands quickly. Ashis has an "inventor" mentality and he's always been fascinated by science. So, he started experimenting. He told a local company about his idea of making an air-conditioner out of plastic bottles. The simplicity of the Eco-Cooler is incredible.

#### Paragraph 3

To make an Eco-Cooler, you cut plastic bottles in half and then mount them on a board. Then, you place the board over a window, with the bottlenecks facing towards the inside of the house. The change in pressure that occurs when air enters the wider part of the bottle and comes out through the bottleneck cools the air. It seems strange, but the principle is simple. Blow on your hand with your mouth wide open. The air feels hot, doesn't it? Now, blow on your hand with your lips pursed. It feels like a cool breeze.

#### Paragraph 4

The Eco-Cooler doesn't require any electricity to function! The Eco-Cooler can decrease the temperature by 5°C immediately. When it goes from 30°C to 25°C, I can tell you that it makes a difference. The Grey group decided to take it on as a pro-bono project. We like to give back -- it's core to our company. We decided to make and distribute these units for free. The company designed the first prototype in March last year and finally finalised it at the end of February this year. That's just when the weather starts getting hot in Bangladesh.

#### Paragraph 5

"The streets here are littered with bottles, so the raw materials are easy to find" Ashis adds. The beauty of it all is how easy these units are to make. First of all, the raw materials are easy to find: people don't recycle here, so the streets are littered with bottles. We show people how to make them and then ask them to both do it on their own and to teach others. We also made a how-to pdf that's up on our website and includes an easy step-by-step process. It's free and people get immediate results!

Source: How Bangladeshi inventors are making eco-friendly air conditioners from plastic bottles  
<http://observers.france24.com/en/20160602-bangladesh-air-conditioner-plastic-bottles-technology>



Questions 1–5: The text on page 2 has five paragraphs (1–5). Choose the best title for each paragraph from A–F below and write the letter (A–F) on the lines below. There is one more title than you need.

1. Paragraph 1 \_\_\_\_\_

A. A great way of encouraging people to recycle

2. Paragraph 2 \_\_\_\_\_

B. Only a simple fact should be used

3. Paragraph 3 \_\_\_\_\_

C. A necessary breakthrough

4. Paragraph 4 \_\_\_\_\_

D. New year, new things to do

5. Paragraph 5 \_\_\_\_\_

E. An sleeping inventor

F. Teachers have the key

Questions 6–10: Choose the five statements from A–H below that are TRUE according to the information given in the text on page 1. Write the letters of the TRUE statements on the lines below (in any order).

6. \_\_\_\_\_

A. Tin hunts are low-quality houses but really cool during summer

7. \_\_\_\_\_

B. Ashis started being amazed by science since a long time ago

8. \_\_\_\_\_

C. A physical principle is responsible of this change in temperature

9. \_\_\_\_\_

D. Almost 3 thirds of the population live in tin huts

10. \_\_\_\_\_

E. A -5°C decrease in temperature is not much noticeable in these houses

F. The company decided to give it as free because they wanted to help the community back

G. Although Bangladeshi people recycle, the streets are full of plastic waste

H. Makers can download the information that teaches them how to make it on their own

Questions 11–15: Complete sentences 11–15 with an exact word, phrase or number from the text (maximum three words). Write the exact word, phrase or number on the lines below.

11. An \_\_\_\_\_ to introduce cool air in tin hunts was elaborated by an inventor called Ashis.

12. The \_\_\_\_\_ the interior of the house and endorsed on the window if you want your environmentally-friendly air conditioning system to work

13. An easy invention that does not require electricity consumption, \_\_\_\_\_, the Bangladeshi inventor says.

14. It gets really hot at the end of February, this is when the first prototype was \_\_\_\_\_

15. Because Bangladeshi people do not recycle much, the surroundings are \_\_\_\_\_ which can both help citizens to make their new air conditioning systems for free and also for recycling.