



# ENGLISH

## Chapter 10 Session B

**3rd**  
SECONDARY

**INVENTION**

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 **SACO OLIVEROS**



# An online article

**1** What vocabulary do you remember? Copy and complete the table.

People in science	Things they do
<i>scientist, engineer ...</i> biologist      chemist doctor physicist      researcher	<i>invent a product,</i> <i>research ...</i> design create      discover find a solution      improve

**2**  **23** Look at the photos and the title of the article. Which words from exercise 1 do you think will be in the text? Read and listen to check your answers.

 **Scientist / Engineer**

 **Invent / design a device**

# Science making a difference



... out  
Well, that  
... Eesha Khare,  
... invented a  
... in just 20–30  
... d have battery  
... 'supercapacitor'  
... tronic device,



## Science making a difference



Could you invent something that makes the world a better place? These two young people did that, and you could too! Find out what inspired them and how they did it.

Has your phone battery ever run out just when you needed to use it? Well, that could soon be a thing of the past! Eesha Khare, a young American engineer, has invented a device that could **charge** a phone in just 20–30 seconds! Not only that, but you'd have battery power for far longer. It's called a 'supercapacitor' and it could be used for any electronic device, even cars. For her device, Eesha used materials that she had designed at the University of California. Eesha had always loved chemistry so it's no surprise she wanted to **improve** technology using it. Eesha's device isn't just good news for tech-loving teenagers. It could help millions in countries where not everyone has electricity at home – not just to charge phones, but perhaps fridges, stoves and lights too. Eesha won a \$50,000 science prize for her invention.

Anurudh Ganesan created a simple, safe way to transport vaccines to **remote** health clinics. Vaccines protect people from diseases and save millions of lives every year. In some countries, health workers have to take vaccines long distances by bike or even on foot in containers with ice. If the vaccines get too warm, they don't work.

Anurudh lives in the United States, but he was born in India. When he was a baby, his grandparents took him to a health clinic. When they arrived, however, they found the vaccines there were all useless. The ice that kept the vaccinations cool had melted before the health worker reached the clinic. It was a common problem.

When Anurudh was 15, he wanted to find a solution. He designed a trailer with a fridge on it – the Vaxxwagon. It uses movement instead of electricity to keep the fridge cool. When someone pulls the **trailer**, the wheels turn and **generate** power.

His invention has already won an international science prize and now Anurudh's dream is to create better **healthcare** worldwide.



So, what are you waiting for? Your invention could be the next big thing!



## Subskill: Identifying text purpose

To understand the purpose of a text, think about:  
Where is it from? Who is it for? Why was it written?

**3** Read the article again and circle the correct option. Give evidence to support your answer.

- 1 The text is probably from
  - a** a popular science website
  - b an online science textbook
- 2 The text is probably for
  - a researchers at university
  - b** people who are interested in science
- 3 What is the writer's purpose?
  - a To instruct people in building an invention.
  - b To inform scientists about new research and inventions.
  - c** To encourage people to invent things.
  - d To advise people how to be inventors.

## 4 Complete each sentence with *E* (Eesha), *A* (Anurudh) or *B* (both).

- 1 A has/have personal experience of the problem.
- 2 E loved science when she/he was younger.
- 3 E's invention could be used with many different types of device.
- 4 B won something because of the invention.
- 5 B found a solution to the problem they wanted to solve.
- 6 E's invention can also help people who need power at home.



## 5 Complete the sentences.

- 1 Eesha's device can charge a phone  
in 20 -30 minutes
- 2 You can use a 'supercapacitor' with  
any electronic device, even cars
- 3 Eesha designed the materials  
at the University of California
- 4 Vaccines are important because  
they protect people from diseases and save lives
- 5 Anurudh couldn't have the vaccine because  
it was useless ( because it was too warm)
- 6 The fridge stays cool when  
someone pulls the tráiler to generate power

6

**Word work**

Match the definitions to the words in bold in the text.

1 far from other cities, towns or people \_\_\_\_\_

2 produce power \_\_\_\_\_

3 make something better \_\_\_\_\_

4 the services that look after people's health \_\_\_\_\_

5 put electricity into a battery \_\_\_\_\_

6 something you can attach to a vehicle to move things \_\_\_\_\_

trailer

**HOMEWORK**  
from 1 to 5

## 7 Complete the sentences with the words in exercise 6.

- 1 I think the best way to generate electricity is solar energy.
- 2 It isn't necessary to improve most devices like cell phones. They're fine as they are.
- 3 I don't like cities. I'd like to live in a remote village.
- 4 You should charge your phone every day, so that you'll always have power.
- 5 It isn't the government's responsibility to provide healthcare. We should pay to see a doctor.
- 6 All cars should come with a trailer. Then you could transport more things easily.



Thank you

