Creativity

Inventive ideas

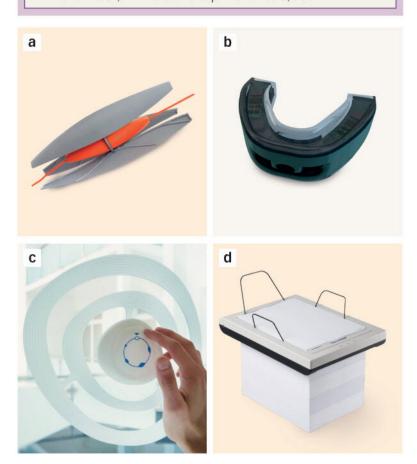
GOALS Use the passive Talk about how things work

Listening & Grammar using the passive

Work with a partner. Read the introduction to an article and look at the photos of four of the entries a-d. What do you think they are? How do you think they work?

Dyson Award

Twenty new inventions created by engineers and designers across the world have been shortlisted for the James Dyson Award. 650 projects were entered by imaginative scientists from eighteen different countries. The winning entry, which will be announced in November, will receive a prize of £30,000.



- 2a 4.1) Listen to descriptions of the entries and match photos a-d to entries 1-4.
- **b** 4.1) Listen again. List two advantages of each invention.

- 3a Work with a partner. Look at the underlined verb forms in the introduction to the article and answer the questions.
 - 1 What tense is each verb form?
 - 2 What structure do they all use?
- **b** Add these extracts from the listening to the correct section of the Grammar focus box. One extract is used twice.
 - 1 This invention has been designed to take up as ...
 - 2 When something is being printed, Stack moves ...
 - 3 ... two out of every three players on a team had been injured that year.
 - 4 ... the information is sent to a computer.
 - If a player is moving more slowly than usual, for example, it will be measured ...
 - 6 The third invention ..., Xarius, was created by a German team.
 - 7 It can be attached to almost anything...

GRAMMAR FOCUS passive forms

We make passive verbs with be + past participle. Passive verbs have the same tenses as active verbs, e.g.

- a Present continuous: 2
- e Past perfect simple:
- b Present simple: ____
- f Future forms:
- c Past simple:
- g Modals:
- d Present perfect simple:

We use passive forms to describe what happens to someone or something.

- If we want to say who or what does the action, we use by.
- Often the person or thing that does the action is not known, or is obvious or unimportant.
- Some verbs have two objects, which means there are two possible active and passive structures.

The designs were shown to the judges. OR The judges were shown the designs.

OR A computer is sent the information.

→ Grammar Reference page 142

4.5

4a Complete the article with the correct passive forms of the verbs in brackets. In some cases more than one tense may be possible.

The Airdrop

The problem of drought-affected farmers (may/solve) by a recent Dyson Award winner, Edward Linacre. Linacre (inspire) by Australia's worst drought in a century when he invented Airdrop. Using his system, water 3_ (can/collect) from the air. Linacre says the idea (give) to him by the Namib Beetle, which survives in the desert by collecting tiny amounts of moisture. Linacre 5 _ (ask) to develop his device by the Chinese government and companies in the Middle East, but, for now, he wants to keep working on it himself. Up until now, the system (develop) in his mum's backyard. In the future, it 7_ (take up) to a more industrial level.



b 4.2)) Listen and check your answers. If any of your answers are different, discuss with your partner whether they are also possible.

PRONUNCIATION weak forms: to be

- **5a 4.3**) Listen to passive phrases from the article in exercise **4a**. What do you notice about the pronunciation of the forms of the verb *to be*?
- **b** 4.3) Listen again and repeat the phrases.

- 6 Rewrite each sentence to make two possible passive sentences.
 - 1 They had given all the entrants an application form.
 - 2 They will give the winners a £10,000 prize.
 - 3 The Chinese government has sent Edward Linacre an offer.
 - 4 Looking at the Namib Beetle gave Linacre the idea for his invention.

Vocabulary & Speaking how things work

7 Work with a partner. Match the verbs in the box to definitions 1-12.

attach control design fix generate measure monitor place protect recharge reduce treat

- 1 produce or create something (e.g. energy)
- 2 give medical care
- 3 be able to make something do what you want
- 4 keep something safe
- 5 put something in place so it will not move
- 6 to fill with electrical power again
- 7 fasten or join something to something
- 8 find the size, weight, quantity, etc. of something
- 9 make something less or smaller
- 10 put something carefully in a particular position
- 11 plan how something will be made
- 12 check or test something regularly
- 8a With your partner, use the verbs in the box in exercise 7 (in the passive form where appropriate) to describe one of the inventions in exercises 1 and 2, and explain how it works, using the vocabulary.
- **b** Use your ideas to write a short paragraph about the invention.
- 9a TASK Work in groups of three. Student A, turn to page 127, Student B, turn to page 133. Student C, turn to page 135. Tell each other about your invention in your own words.
- **b** Decide which invention is the most useful.
- VOX POPS VIDEO 4