

Unit 8 Solutions

Energy &
Sustainability

Bright ideas

Vocabulary: Solutions

Language: Past simple negatives, question and short answer

Career skills: Explaining a technical problem

Writing: Email explaining a technical problem

Vocabulary 1 Choose the correct word a-c to complete the sentences.

Reading

1 Read the article on the opposite page and tick (✓) four things that it mentions.

- a machines that use bulbs
- b electricity
- c factories
- d offices
- e shops
- f a percentage

2 Read the article again and choose the correct answer a-d.

- 1 What does the writer say about light bulbs in the first paragraph?
 - a You don't need to change light bulbs.
 - b Normal bulbs never stop working.
 - c People use bulbs in lots of different machines.
 - d The machines often stop working.
- 2 What problem does the writer mention in paragraph two?
 - a Bulbs use more energy than necessary.
 - b Bulbs use less energy than they need.
 - c Bulbs are not hot.
 - d Bulbs are efficient.

- 3 What solution does the writer mention in paragraph three?
 - a A team of scientists want to work on the project.
 - b Researchers don't use light bulbs.
 - c A research team made a bulb that is efficient and lasts a long time.
 - d Scientists discovered a new bulb that doesn't need electricity.
- 4 What does the writer say about the new bulb in paragraph four?
 - a It's small but it doesn't give a lot of light.
 - b It's good for scientists to use in a laboratory.
 - c It costs a lot of money.
 - d It isn't big but it gives a lot of light.

The Economist

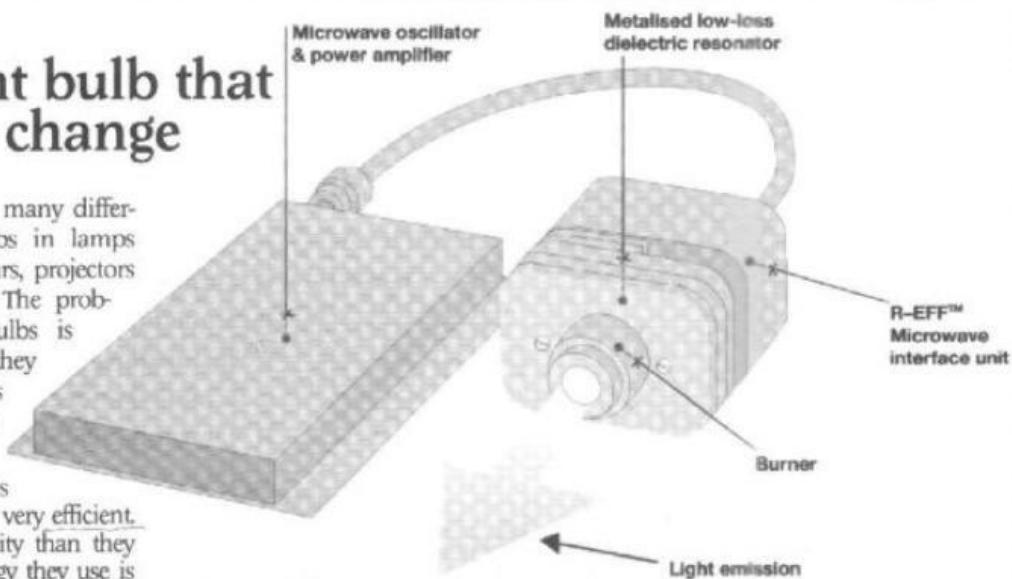
Everlasting light

A new light bulb that you never change

1 We use light bulbs in many different things: large bulbs in lamps and small bulbs in cars, projectors and other machines. The problem with normal bulbs is that after a while they stop working. Then it's necessary to put in a new bulb.

2 The other problem is that light bulbs are not very efficient. They use more electricity than they need. Most of the energy they use is heat rather than light. Different machines need different types of bulb. So sometimes you don't have the right sort of bulb.

3 But scientists found a solution. A team of researchers created a light bulb that uses less energy. It also lasts a long time. The team discovered



that it didn't last forever, but it certainly lasted as long as the machine it was in. The bulb can be used for all sorts of different things, from televisions to lighting offices.

4 The new bulb is perfect for places where it is difficult to change light bulbs. It's small but it can give a

bright light, so it's useful in lots of different situations. It's also cheap to make. Data shows that 20 percent of the world's electricity is used in lights. So a bulb that saves energy and lasts almost forever is good news for customers and the planet.

Vocabulary 2 Circle the correct word in italics to complete the sentences.

- 1 We start with an idea and then we invent / develop it into a product.
- 2 I don't want to fail / succeed the exam.
- 3 The R&D department create / include new products for the range.
- 4 Do you have any ideas about how to succeed / solve this problem?
- 5 We need to improve / increase the design because it doesn't work.
- 6 Everyone wanted the plan to create / succeed.
- 7 They manufacture / invent the cars in a factory in Leipzig.
- 8 The only solution is to include / increase the price of the product from €46 to €49.

Language check Complete the conversation with the negative, question or short form of the past simple.

A ¹ Did you go to the product development meeting yesterday?
B No, I ² I was at a conference. ³ Jeremy there?
A No, he ⁴ He was on holiday.
B ⁵ the marketing director give a presentation?
A Yes, he ⁶ But there was a problem with his laptop – it ⁷ work.
B What ⁸ he do?
A He phoned the technician, but she ⁹ arrive until 5:30, so the presentation ¹⁰ finish until 7pm.
B ¹¹ Helga and Kay at the presentation? They're good with computers.
A No they ¹² They were in Lisbon.

Listening 1  Match each conversation 1-5 with one of the subjects a-i.

Conversation	Subject
1	a an invitation to lunch
2	b how to operate a radio
3	c the wrong account number
4	d a different colour
5	e a question about a printer
	f instructions for a laptop
	g a radio that doesn't work
	h the wrong photocopier
	i instructions for a PC

Listening 2  **1** Listen to a customer explaining a technical problem. Are these statements true or false?

- 1 Mr Jenkins telephones customer services. *True*
- 2 He bought the product last month.
- 3 He repeats his account number.
- 4 He used the internet to buy the product.
- 5 He didn't read the instructions.
- 6 It isn't possible to fix the machine.

2 Listen again and complete the form.

Customer name: ¹ Phil Jenkins Account number: ²

Product: ³ player Model: ⁴ P

Problem: No ⁵

Solution: Collect the machine for repair on ⁶

Writing Write an email (40–60 words) to Keira Roberts at Henley Photographics. Tell her about a technical problem with your camera. Use the information below. Then compare your answer with the suggested answer on page 93.

- Product: digital camera model 827F
- Bought: Thursday 22nd August
- From: Henley Photographics website, order number DJ782/JL
- Problem: turn on camera / not work
- Action: ask company to fix it.

