

# 5 It's Not Rocket Science



## IN THIS UNIT, YOU...

- learn about and discuss different life hacks.
- read about why humans are curious.
- learn about brain research.
- watch a TED Talk about science being for everyone.
- design and write about an experiment.

Taylor Wilson is the youngest person ever to produce a type of energy called *nuclear fusion*. He did it by building a reactor in his parents' garage.

## 5A Life Hacks

### VOCABULARY Science in action

1 Work in groups. Discuss the questions.

- 1 In what ways has science made life easier or better in your lifetime?
- 2 Can you think of two mysteries science has yet to solve?
- 3 Which scientists have you heard of? Why are they famous?
- 4 What personal qualities are most important if you want to be a scientist? Why?

2 Work in pairs. Do you understand the words in bold? Use a dictionary, if necessary.

- 1 **design** an experiment
- 2 **conduct** research
- 3 **form** a hypothesis and **prove** it
- 4 **put** a substance in water and **heat** it up to help it **dissolve**
- 5 **create** a chemical reaction that **releases** a gas
- 6 **track** students' progress
- 7 **record** the results of an experiment and **analyze** them
- 8 **write** a report and **add** references at the end
- 9 **place** something under a microscope
- 10 **reward** hard work
- 11 **get rid of** a chemical
- 12 **submit** an assignment

3 Work in pairs. Do the actions in Activity 2 happen in your science classes at school? Who does each activity? Give examples.

*We don't really design experiments at school. We just follow the ones in the textbook or do what the teacher tells us to do.*

4 Complete the phrases. Add verbs from Activity 2 that are commonly used with each set of words.

- 1 ...a theory / ...an opinion
- 2 ...samples / ...the results
- 3 ...an operation / ...a survey
- 4 ...chemicals into the atmosphere / ...an animal
- 5 ...an essay / ...it before the deadline
- 6 ...their effort / ...her for her work
- 7 ...the movement of birds / ...your progress

5 Work in pairs. Compare your answers in Activity 4. Then think of one more word or phrase to go with each verb. Use a dictionary, if necessary.

6 Look again at your completed phrases in Activity 4. Who might perform each action? Why?

7 **MY PERSPECTIVE**

Work in groups. Discuss the questions.

- 1 What science experiments have you done at school that you enjoyed?
- 2 Have you ever designed an experiment yourself? If yes, what for? If no, why not? What experiment would you like to design?

## LISTENING

8 Work in pairs. Read the definition. Then tell each other any life hacks you know for:

- 1 smartphones.
- 2 computers / computer games.
- 3 the home.
- 4 food and drink.

**Life hack** /laɪf hæk/ noun [countable]

A simple solution or a piece of advice that helps you solve a problem, save time, or improve how something works.

9 Listen to an extract from a radio show called *Life Hacks*. Answer the questions.  22

- 1 What four life hacks are mentioned?
- 2 What problems do the life hacks help solve?

10 Correct the false information in each sentence. Then listen again to check your ideas.  22

- 1 Marie bought herself a phone for her birthday.
- 2 Marie's a morning person.
- 3 It's best to put the paper cup right next to your bed.
- 4 The cup throws the sound around the room.
- 5 The app alters your sleep patterns.
- 6 Phones can be charged faster on airplanes.
- 7 Spicy food increases the temperature in your mouth.
- 8 The chemical in chilies is easily dissolved with water.

11 Complete the extracts with three words in each blank. Then listen again to check.  22

- 1 Well, I \_\_\_\_\_ this lovely new smartphone.

- 2 And of course it works better as an alarm if the cup \_\_\_\_\_ far away from your bed, as then \_\_\_\_\_ to get up to turn it off.
- 3 The cup channels the sound in one direction, whereas normally \_\_\_\_\_ around all over the place.
- 4 \_\_\_\_\_ to track your sleep patterns and wake you up during light sleep rather than deep.
- 5 If your \_\_\_\_\_ and you need it done ASAP, then what you need to do is put it in Airplane mode.
- 6 An email has \_\_\_\_\_ to me by Maxine, who's suggested a hack for anyone out there who likes a spicy curry from time to time.

## 12 MY PERSPECTIVE

Which of the four life hacks do you think is:

- the most useful? the least? Why?
- the easiest to understand from a scientific point of view? the hardest? Why?

## GRAMMAR Passives 1

13 Work in groups. Look at the Grammar box. Then answer the questions.

- 1 What tense are each of the passive forms in Activity 11?
- 2 Why is the passive used in each case?
- 3 Identify the object(s) in the sentences in the Grammar box. Are the objects direct or indirect? What do they refer to?

## The passive

The passive is made by using a form of the verb *be* + past participle.

- a *I was recently given this lovely new smartphone.*
- b *An email has just been sent to me by Maxine.*

Check the Grammar Reference for more information and practice.

14 Complete the blog entry with the correct passive forms.

If you're making a list of the most important inventions ever, the internet should (1) \_\_\_\_\_ (place) right at the top! Our lives (2) \_\_\_\_\_ completely \_\_\_\_\_ (transform) since the first web page (3) \_\_\_\_\_ (create) in 1990. It could even (4) \_\_\_\_\_ (say) that the internet is the ultimate life hack! Of course, various linked systems of computers (5) \_\_\_\_\_ (use) for some time before the birth of the world wide web, and early versions of what was to become the web (6) \_\_\_\_\_ regularly \_\_\_\_\_ (test) throughout the 1970s and 80s. Today, though, it's rare to meet someone who has no interest in (7) \_\_\_\_\_ (connect). For many young people, that means more than 20 hours a week online! Indeed, the internet has become so essential to our lives that some argue it is like air, and that everyone should (8) \_\_\_\_\_ (give) free access to it.

15 PRONUNCIATION Stress in passives

When using the passive, greater stress is placed on the main verb and less stress is placed on the auxiliary verb.

- a Look at the completed blog entry in Activity 14. Which word is stressed in each passive construction?
- b Work in pairs. Practice reading the blog entry in Activity 14 with the correct stress.

16 Work in pairs. Discuss the questions.

- 1 Do you agree that the internet is the most important invention ever? Why?
- 2 What other inventions would you put near the top of the list? Why?

17 Underline the passives in the descriptions. Can you name the things described?

- 1 The name is taken from Tagalog, a language that's spoken in the Philippines, where it was used as a weapon for hundreds of years. It was first produced as a toy in California in the 1920s.
- 2 It is thought that it was first produced in Mocha, Yemen, over a thousand years ago. It's now consumed all over the world—particularly in the morning.
- 3 It was first invented in Ancient China over 2,000 years ago for use in government, but wasn't introduced into Europe until the 11th century.
- 4 You've probably been asked to type letters into one of these when using the web. They're used to prevent spam and were invented by TED speaker Luis Von Ahn from Guatemala.

18 Work in pairs. Write a description of something like in Activity 17. Use the passive. Then work with another pair of students. Can they correctly guess what is being described?



People have created more original ways to use cups as loudspeakers.

## 5B Curiosity, Cats, and Kids

### VOCABULARY BUILDING

#### Adjective endings

Adjectives can sometimes be recognized by their endings. Common adjective endings include:

**-ous:** curious, tremendous, previous

**-able:** reliable, treatable, adaptable

**-ive:** effective, innovative, imaginative

**-ful:** beautiful, hopeful, helpful

**-al:** practical, electrical, social

**1** Work in pairs. Think of a noun that each adjective in the Vocabulary Building box often goes with. Use a dictionary, if necessary.

**2** Choose four pairs of words from Activity 1. Write a sentence for each pair.

*Research needs to have practical applications.*

**3** Choose the correct options.

It is often thought that (1) *innovation / innovative* in science comes from the labor of (2) *curiosity / curious* geniuses: the kinds of individuals who work in isolation, find (3) *pleasure / pleasurable* in exploration, and who don't worry too much about the (4) *practicality / practical* applications of their findings. While it is true that the (5) *use / useful* of many new discoveries is not always immediately clear, you only have to look at the results of scientific work conducted by teams to see that it is a (6) *social / society* process and involves far more (7) *cooperation / cooperative* than is often imagined. (8) *Collaborative / Collaboration* can not only help to speed up scientific work; it can also enhance the quality of the work and help share knowledge amongst a wider group of individuals.

**4 MY PERSPECTIVE**

Work in pairs. Answer the questions.

- 1 What are the advantages and disadvantages for scientists or researchers working on their own, as part of a small team, and in a much bigger team?
- 2 How do you prefer to work? Why?

### READING

**5** Read the article about curiosity. Which sentence is the best summary of the main point?

- a Technology can help us become more curious, but it can also kill our curiosity.

- b It's more important than ever to make sure kids learn to be curious.
- c Social media doesn't help us know people better.
- d We run the risk of becoming less curious if we're not careful.

**6** Work in pairs. Which statements do you think the writer would likely agree and disagree with? Refer to the article to explain why.

- 1 Parents should make sure kids don't experiment too much.
- 2 You can't create anything new unless you recognize the limits of your understanding.
- 3 The people funding scientific research should demand clear outcomes.
- 4 Humans are basically programmed to ask why.
- 5 You don't get a full picture of people from the way they present themselves online.
- 6 We need to share ideas with like-minded people if we are to develop our curiosity.

**7** Work in groups. Do you agree with the statements in Activity 6? Why?

### CRITICAL THINKING Asking critical questions

To check ideas and deepen understanding, ask questions about statements or research. For example:

*Research has shown that curiosity is just as important as intelligence in determining how well students do at school.*

The starting points for thinking critically about this statement might be:

*How is student success measured? In what subjects?*

*How are curiosity and intelligence measured? How different are they?*

*Can you be intelligent without being curious, and vice versa?*

*Can you be successful at school without one of these characteristics?*

*Is curiosity important for doing well in a job? What kind of jobs?*

**8** Work in pairs. What are two questions you would ask if you wanted to think critically about each statement?

- 1 Hard work is more important for success than either curiosity or intelligence.
- 2 There is some evidence that bees can think like humans.
- 3 It has been shown that you can only learn seven words in a language lesson.

**9** Compare your ideas in Activity 8. How many of the questions can you already answer? What is the best question to explore each statement?

# Back to the future?

Curiosity allows us to embrace unfamiliar circumstances, brings excitement into our lives, and opens up new possibilities. But how curious are we in the 21st century?

**23** Perhaps you've heard the old saying "curiosity killed the cat." It's a phrase that's often used to warn people—especially children—not to ask too many questions. Yet it's widely agreed that curiosity actually makes learning more enjoyable and effective. In fact, research has shown that curiosity is just as important as intelligence in determining how well students do in school.

Curiosity also allows us to embrace unfamiliar circumstances, brings excitement into our lives, and opens up new possibilities. Being curious requires us to be both humble enough to know we don't have all the answers, and confident enough to admit it. Asking the questions that help us bridge the gap between what we already know and what we'd like to know can lead us to make unexpected discoveries.

In science, basic curiosity-driven research—conducted without pressure to produce immediate practical results—can have unexpected and incredibly important benefits. For example, one day in 1831, Michael Faraday was playing around with a coil and a magnet when he suddenly saw how he could generate an electrical current. At first, it wasn't clear what use this would have, but it actually made electricity available for use in technology, and so changed the world.

Unsurprisingly, there are chemical and evolutionary theories to explain why humans are such curious creatures. When we become curious, our brains release a chemical called dopamine, which makes the process of learning more pleasurable and improves memory. It is still not known why learning gives us such pleasure, but one theory is that we

may have developed a basic need to fight uncertainty—the more we understand about the world around us, the more likely we are to survive its many dangers!

However, curiosity is currently under threat like never before—and perhaps the biggest threat comes from technology. On one level, this is because technology has become so sophisticated that many of us are unable to think too deeply about how exactly things work anymore. While it may be possible for a curious teenager to take a toaster apart and get some sense of how it works, how much do you understand about what happens when you type a website address into a browser? Where does your grasp of technology end and the magic begin for you?

In addition to this, there's the fact that we all now connect so deeply with technology, particularly with our phones. The more we stare at our screens, the less we talk to other people directly. To make matters worse, all too often we accept the images of people that social media provides us with, and then feel we know enough about a person not to need to engage further with them.

The final—and perhaps most worrying—way in which technology stops us from asking more has to do with algorithms, the processes followed by computers. As we increasingly get our news via social media, algorithms find out what we like and push more of the same back to us, meaning that we end up inside our own little bubbles, no longer coming across ideas that challenge our pre-existing beliefs. Perhaps the real key to developing curiosity in the 21st century, then, is to rely less on the tech tools of our age.

Curious explorers make their way through Rising Star Cave in South Africa.

## 5C Mind-blowing!

### GRAMMAR Passives 2

- 1 Work in groups. Look at the Grammar box. Do you believe the sentences are true? Explain why using these phrases.

*I'm absolutely sure.*

*I'm not sure but, if I had to guess, I'd say...*

*I read about it recently. / We did it in class.*

*I remember hearing about it.*

*I've got a feeling it's a myth / it's a trick question.*

#### Passive reporting verbs

- a *The heart was believed to be the center of intelligence until the Middle Ages.*
- b *It is claimed that computer training programs can limit the effects of aging on the brain.*
- c *Einstein's brain was said to be bigger than average, which explains his intelligence.*
- d *It is estimated that the human brain is about 75 percent water.*
- e *It is well known that most of the time we only use ten percent of our brain capacity.*
- f *Exercising is thought to create chemicals that reduce your ability to think.*
- g *The part of the brain called the hippocampus is known to be connected with our sense of direction.*
- h *It has been generally accepted that creative people have a dominant right brain.*

Check the Grammar Reference for more information and practice.

- 2 Listen and find out which sentences in the Grammar box are true. How many did you get right? 🎧 24
- 3 Work in pairs. Look at the Grammar box again and:
- identify the whole passive reporting pattern in the sentences that begin with *It*.
  - identify the form of the verb that follows the passive forms in sentences that do not begin with *It*.
  - discuss what you notice about the different patterns.
- 4 Write sentences about the brain using these notes and the passive.
- The brain / estimate / contain...around 12 percent fat.  
*The brain is estimated to contain around 12 percent fat.*
  - It / once / think / the brain / become...fully mature by the time children were six.
  - The brain / now / know / develop...most during the teenage years.
  - It / once / believe / the brain's networks / become...fixed as we aged.
  - Brain training activities / claim / improve...listening skills and memory.
  - It / sometimes / say / brain size / affect...intelligence.
  - It / still / not really know...why we dream while we sleep.
  - Brain transplants / generally accept / be...impossible.
- 5 Work as a class. Discuss how you think research into the brain is carried out.

- 6 Choose the correct options to complete the article about brain research. Does the article cover the ideas you thought of in Activity 5?

Our understanding of the brain has changed with developments in science, surgery, and medical technology. For example, as new technologies were invented, the brain was thought (1) *to be / that it is* like a mechanical watch or telephone communication. More recently, it (2) *has been described / describes* as a computer.

After Galen proved that the brain was the center of intelligence, it was generally assumed that different parts of the brain (3) *to control / controlled* certain senses and functions of the body. However, the brain could only really (4) *understand / be understood* from the outside by studying animal brains and dissecting human bodies. Knowledge increased as a result of surgery where a patient had a tumor removed from their brain and the resulting physical change meant that functions could be mapped to the part of the brain that had been operated on. This mapping came about as much through failed operations as successful ones. Now, operations (5) *sometimes conduct / are sometimes conducted* while the patient is awake and talking. If a part of the brain (6) *touched / is touched* and it affects one of the patient's senses, he or she can tell the surgeon!

Since the late 1970s, medical technology, such as MRI scanning, (7) *has allowed / has been allowed* safe research into the brain without the need for surgery or X-rays. MRI uses powerful magnets and computer imaging to see high blood flows in different parts of the brain that (8) *believe / are believed* to show brain activity. If people (9) *have / is* their brains scanned while doing various thinking activities, researchers think they can (10) *identify / be identified* more accurately how the brain works. One result of this research is to show the limits of the brain-computer comparison. For example, it is now understood that memories are not stored in one place, but are the result of activity in many parts of the brain.

#### Causative have and get

- a *Scientists can do research into the brain by using scanners.*
- b *Research into the brain can be done (by scientists) by using scanners.*
- c *To get the research done, scientists used a brain scan.*

Check the Grammar Reference for more information and practice.

Since the late 1970s, medical technology, such as MRI scanning, has allowed safe research into the brain without the need for surgery or X-rays.

- 7 Look at the Grammar box. Then complete the explanation.

- In the first sentence, \_\_\_\_\_ is the object of the verb *do*.
- In the second sentence, *research* becomes the \_\_\_\_\_ of the passive structure *can be done*.
- In the third sentence, we use the structure *get + something + \_\_\_\_\_* so we can make the person affected by an action (scientists) the subject of the sentence.

- 8 Write normal sentences in the passive, based on these sentences.

- They had their brains scanned while they were singing.
- The hospital is having a new MRI scanner installed.
- The scientists had their research evaluated.
- I'm going to have my examination later.
- My dad had his head examined when we were in the hospital.

- 9 Work in pairs. Complete the sentences in as many different ways as you can. Use a dictionary, if necessary.

- The patient had \_\_\_\_\_ scanned.
- I had \_\_\_\_\_ examined.
- They should have \_\_\_\_\_ tested.
- The scientists are having the laboratory \_\_\_\_\_.
- I'm going to have my injury \_\_\_\_\_.
- The research center is going to have \_\_\_\_\_.

- 10 CHOOSE

Choose one of the following activities.

- Write a set of sentences like the ones in the first Grammar box. Share your facts.
- Discuss ways in which the brain could be compared to:
  - a city.
  - a computer.
  - an orchestra.
  - a spider's web.
- Write about one of these experiences.
  - a time you had to have something scanned or tested
  - a time something in the news proved to be wrong



“ Play is one of the only human endeavors where uncertainty is actually celebrated. Uncertainty is what makes play fun. ”

**BEAU LOTTO**

Read about Beau Lotto and Amy O’Toole and get ready to watch their TED Talk. ▶ 5.0



## AUTHENTIC LISTENING SKILLS

### Fillers

You can use words and phrases like *right*, *all right*, and *you know* to ask for agreement, to check that people are understanding, or as a filler while we pause or move on to the next point.

*So, this game is very simple. All you have to do is read what you see. Right?*

1 Look at the Authentic Listening Skills box. Listen to the extract. Identify where Beau adds *right* or *all right*. 25

What are you reading? There are no words there. I said, read what you’re seeing. It literally says, “Wat ar ou rea in?” That’s what you should have said. Why is this? It’s because perception is grounded in our experience. The brain takes meaningless information and makes meaning out of it, which means we never see what’s there, we never see information, we only ever see what was useful to see in the past. Which means, when it comes to perception, we’re all like this frog. It’s getting information. It’s generating behavior that’s useful.

2 Practice reading aloud the extract in Activity 1 in a similar style to Beau.

## WATCH

3 Work in groups. Discuss the questions.

- 1 Are you good at science? Why?
- 2 In what ways do you think science is similar to play?
- 3 Have you ever asked someone a question about science that they could not answer? What was it?

4 Put the sentences (a–h) in order. The first and last are given.

- 1 Perception is grounded in our experience.
  - a These are the exact same ways of being you need in order to be a good scientist.
  - b If perception is grounded in our history, it means we’re only ever responding according to what we’ve done before.
  - c Uncertainty is what makes play fun. It opens possibility and it’s cooperative.
  - d The question “why?” is one of the most dangerous things you can ask, because it takes you into uncertainty.
  - e But actually, it’s a tremendous problem, because how can we ever see differently?
  - f So what is evolution’s answer to the problem of uncertainty? It’s play.
  - g So if you add rules to play, you have a game. That’s actually what an experiment is.
  - h Now... all new perceptions begin in the same way. They begin with a question.
- 10 So armed with these two ideas—that science is a way of being and experiments are play—we asked, can anyone become a scientist?

5 Watch Part 1 of the talk. Check your order of the sentences in Activity 4. 5.1

6 What does Beau not mention when he talks about uncertainty making play fun?

- a Play is adaptable to change.
- b Play is cooperative.
- c Play opens up possibility.
- d Play is unrewarding.

7 Watch Part 2 of the talk. Are the sentences *true*, *false*, or *not stated*? 5.2

- 1 None of the questions the children thought of had ever been studied before.
- 2 The children wanted to research if bees adapt their behavior to solve problems like humans do.
- 3 Bees are one of the most intelligent insects.
- 4 The experiment required bees to recognize the correct color to get a reward.
- 5 There were several ways for the bees to solve the puzzle the children set up.
- 6 The results of the experiment were surprising.
- 7 Beau wrote the journal article.
- 8 The paper was rejected by the publisher because it was written in the wrong style.

8 Watch Part 3 of the talk. Answer the questions. 5.3

- 1 How did the research finally get published?
- 2 What was the reaction to the research?
- 3 What were two lessons that Amy learned?

9 Amy says that changing the way a person thinks about something can be easy or hard. Explain why you think it would be easy or hard to change the way people think about:

- what they eat.
- what they watch on TV.
- where they shop.

10 MY PERSPECTIVE

Did the TED Talk change your views about science and scientists at all? In what way?

11 VOCABULARY IN CONTEXT

- a Watch the clips from the TED Talk. Choose the correct meanings of the words and phrases. 5.4
- b Work in pairs. Talk about:
  - a time you received a *reward* for doing something.
  - a time you regret *not bothering* to do something.
  - an interesting or possible *link* that scientists have discovered in recent times.
  - a time you had to *adapt* to a new situation.
  - people you think should be given more of a *voice*.

## CHALLENGE

Beau and Amy do not explain much about how the experiment worked, apart from showing the one pattern of flowers. Work in groups. Discuss how you would:

- give rewards to bees for going to “good flowers.”
- identify which bees are going to which flowers.
- train the bees to learn the pattern of one color surrounded by another.
- check that the bees aren’t just “smelling” the good flowers.
- check that the bees aren’t just choosing the good flowers by color.
- check that the bees aren’t just choosing the flowers in the middle.

Read the paper about Blackawton Bees and see exactly how the children set up the experiment and what they discovered. It’s available on the TED website.

# 5E Conducting Experiments

## SPEAKING

### Useful language

#### Staging

The first thing we'd need to do is...  
 We'd also need to make sure that we  
 (didn't)...  
 I suppose then we should...

#### Preparing research questions

I wonder if/how/why...  
 It'd be good to know what/  
 whether...  
 We'd need to try to figure out...

#### Hypothesizing

I'd expect the results to show...  
 I'd imagine that the data would  
 probably reveal...  
 I would/wouldn't have thought it  
 would be possible to prove that...

**1** Work in pairs. Look at the questions. Discuss why it might be useful to know the answer to each of them. What do you think the answers are?

- 1 How much does homework improve exam results?
- 2 Do goldfish only have a ten-second memory?
- 3 How many words can you learn in an hour?
- 4 Does going out with wet hair cause colds or the flu?
- 5 Do boys get more attention in class? If so, why?
- 6 Are people who listen to pop music happier?
- 7 What is the quickest way to have people board a plane?

**2** Work in groups. If you were going to design an experiment for a question like one of those in Activity 1, what steps would you need to complete?

**3** Listen to a short lecture on how to design experiments. Note the six main steps. Then compare your answers with a partner. Use the light bulb experiment to explain each stage.  26

**4** As a class, discuss why you think:

- 1 certain kinds of hypotheses are easier to prove than others.
- 2 proving a hypothesis wrong can be an important step towards learning.
- 3 it's important to record in detail how experiments are set up and conducted.
- 4 proving a hypothesis right in the way described could be seen as insufficiently scientific.

**5** Work in pairs. Design an experiment to:

- a find the answer to a question in Activity 1.
- b see if one of the life hacks you learned about earlier actually works.
- c test another life hack you have heard about.

Use some of the language in the Useful language box. Decide:

- how you would set the experiment up.
- what kind of data you would record.
- what points of comparison you would need.
- what you would expect the results to prove.

**6** Work with another pair. Explain the design of your experiment. Can your partners see any way in which it could be improved?

How can you find out if goldfish really have a ten-second memory?

## WRITING A scientific method

**7 WRITING SKILL** Describing a process

Work in pairs. How do you think writing about a process is different from telling a story? Is the guidance typical of stories or scientific reports?

- 1 You avoid using personal pronouns, such as *I*, *he*, or *she*.
- 2 You use a wide variety of words and descriptive language.
- 3 You use a lot of passive sentences.
- 4 You write steps in the order they happened.
- 5 You define words you think your reader may not know.
- 6 You use idioms and colloquial language.
- 7 You summarize what you are going to tell people at the beginning.
- 8 You explain the reason for doing something.
- 9 You may add a diagram of what you are describing.
- 10 You have a final sentence or comment that summarizes the point of the text.

**8** Read about the process that was completed in preparation for the Blackawton Bee experiment on page 151. Which of the features in Activity 7 can you identify?

**9** Look at the Useful language box. Use the language and these verbs to retell the process in the diagram on this page. Then look at the process on page 151 and check how well you did.

let into	paint	pick up	place	put into
release	remove	return	turn off	warm up

**10** Write a method like the one on page 151, describing:

- one of the experiments you designed in Activity 5.
- an experiment you have conducted at school.
- a famous historical experiment that you are interested in.

### Useful language

#### Introducing the process

The experiment aimed to show that...  
 The purpose of the experiment was to find out if...  
 The diagram illustrates the process used to...  
 Figure one shows how...

#### Linking steps

First of all...  
 Before starting the experiment...  
 The bees were then released...  
 Once the bees had been released...  
 After being released, the bees...  
 Finally...

#### Explaining the steps

They were marked **to** identify them.  
 They were marked **in order to** identify them.  
 They were marked **so that they could** be identified.  
 In order to do this,...

