## **Explaining what happened**

1 What do you think is happening in these pictures? Listen and read the story and find out.



This is a true story. On July 2 1982, Larry Walters, a 33-year-old North Hollywood truck driver, filled 45 weather balloons with helium and tied them to an aluminum\* garden chair. Then he put on a parachute and climbed into the chair with lots of supplies, including some water, a pellet gun, a CB\* radio, an altimeter, and a camera. He planned to fly across the desert.

aluminium BrE - aluminum AmE

CB radio: Citizen's band is a radio frequency for private radio communications.



The chair was attached to the bumper of a friend's car with two ropes. But when his friends cut one of the ropes, the other rope snapped too. Larry shot up into the sky at more than 300 metres per second. It was so fast that his glasses fell off. He climbed quickly to about five kilometres above the ground.

Larry spoke to his friends on his tadio. 'I'm floating across Los. Angeles Harbour', he said. He wanted to fly to the Rocky Mountains, but the wind took him towards Long Beach Municipal Airport. Two pilots saw Larry and radioed air traffic control. They were all very surprised.

The air was thin three miles above the ground and Larry felt cold and dizzy. He shot some of the balloons with his gun, the chair floated down, and he landed safely.

Back on earth, Larry was famous. He appeared on lots of television shows and people loved him. But the Federal Aviation Administration didn't think it was funny and they wanted to take away his pilot's licence. They couldn't, because he didn't have one.

- 2 Ask and answer these questions with a partner.
  - 1 Who was Larry Walters?
  - 2 What was in the balloons?
  - 3 What did he take with him on his flight?
  - 4 What went wrong at take-off?
  - 5 How high did he go?
  - 6 How did he communicate with his friends on earth?
  - 7 Did he plan to fly over the airport?
  - 8 How did he come back to earth?
  - 9 Why couldn't the Federal Aviation Administration take away his pilot's licence?
- 3 Underline all the verbs (actions) in the story. Find verbs that mean:
  - 1 to break suddenly, often with a sharp noise
  - 2 to travel slowly through the air.

Which verbs in the story are regular and which are irregular?

## Regular and irregular verbs

Regular verbs end in -ed in the Past Simple. It's a short sound.

filled tied snapped climbed

When the verbs end with a /d/ or /t/ sound, it's a long sound.

landed wanted floated

Many common verbs are irregular in the Past Simple:

 $fall \rightarrow fell$  take  $\rightarrow$  took cut  $\rightarrow$  cut

4 The verb be is the most common verb in English. Its Present Simple forms are am, is, and are. What are its Past Simple forms? What are the other most common verbs in English? Can you guess? You can find the twenty most common verbs in this puzzle. Read across →, down ↓, and diagonally up ↗ or down ↘.

G	C	U	Н	B	S	A	Y
D	0	S	A	X	E	X	X
X	M	E	V	T	E	L	L
G	E	T	Е	A	X	W	K
X	F	Н	X	K	N	0	W
X	G	1	V	E	0	R	A
X	X	N	N	L	X	K	N
M	A	K	E	D	P	U	Т

Many of these verbs have irregular forms in the Past Simple. What are they?

You can check your answers in file 2 on page 102, and there's a list of irregular verbs on page 118.

- 6 Think of an interesting holiday you went on, or an exciting trip you made. Take a few minutes to prepare, then tell some other students about it.
  - 1 Where did you go?
  - 2 Who were you with?
  - 3 How did you travel?
  - 4 What did you take with you?
  - 5 Did everything go to plan?
  - 6 What happened when you got back?

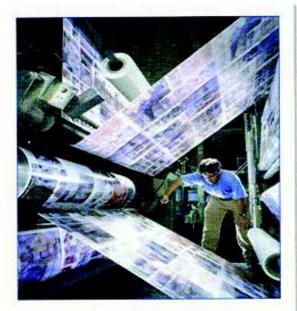
## Rises and falls

- 1 How does your company measure quality? What statistics does it collect?
- 2 Read about some quality improvements at some other companies and answer the questions.
  - 1 What kind of company is Color Graphics?
  - 2 Why did the manager stop the presses?
  - 3 What kind of changes did they make to the production processes?
  - 4 What reduction did the company achieve?



Walton Electronics, a electronics manufacturer, upgraded the lighting in their workshops and ran an experiment at the same time. In one area, they installed brighter, high-intensity lights, but they left the original lighting in place. After a six-month trial period, they turned on the old lights again. The employees hated it! Turn the lights back on!' they shouted. The installation of the new lights cost \$98,000 but Walton Electronics's energy bills went down by \$48,000 in the first year. And that wasn't all. With the new lights, people could see better, so the quality of their work increased too—that was worth another \$25,000 a year.

- 5 What improvement did Walton Electronics make to its workshops?
- 6 What experiment did they run?
- 7 How much did they save on electricity?
- 8 What was the value of the increase in quality?



A manager at Color Graphics stopped one of the company's printing presses one day and asked for everyone's attention. He showed the employees sixteen drums of waste ink and asked, 'How long does it take us to produce this waste?' Everyone was surprised to learn that they filled the drums in just one month. They began looking for ways to reduce the volume of waste. They made a lot of changes – just simple low-cost production changes, but they had a big effect. Over five years the company's total liquid waste fell from 1,525 barrels to 991 – a 35 per cent reduction.

3 We use lots of different verbs to talk about rises and falls. Look at the words in **bold** in these sentences. Can you think of other verbs you could use?

At Walton Electronics, energy bills went down and the quality of the work increased. Color Graphics reduced its ink waste.

Do these verbs describe upward 
or downward 
movements?

decrease reduce go up rise fall improve lower drop cut

Which verbs have noun forms too?

Example

reduce → a reduction in waste

- 4 Look at some more statistics. Which ones refer to:
  - 1 spending on raw materials?
  - 2 pieces made per man-hour?
  - 3 how much oil, gas, and electricity you use?
  - 4 employees not coming to work?
  - 5 materials you throw away?
  - 6 materials you keep and use again?
  - 7 goods and materials you have in stock?
  - 8 the release of gas or radiation into the atmosphere?
  - 9 time when you produce nothing?
  - 10 the money you make when you sell something?
  - 11 the money you pay to the government?
  - 12 mistakes, errors?
  - 13 staffing costs?
  - 14 employees getting injured or things getting damaged?

Waste	- 1%	Material costs	- 4%
Defects	+ 2%	Recycled materials	- 15%
Taxes	- 2%	Emissions	- 6%
Profit	- 7%	Productivity	+ 7%
Downtime	+ 18%	Energy consumption	+ 10%
Accidents	- 6%	Absenteeism	- 5%
Inventory	+ 9%	Wages and salaries	+ 8%

- 5 Are the statistics in 4 good or bad? Which things do you try to increase, and which do you try to decrease?
- 6 What's the Past Simple of these verbs?

7	, v
increase	decrease
rise	fall
go up	go down

Work with a partner, Discuss the statistics in

- 4. Use the verbs.
- A Waste fell by 1 per cent this month.
- B Yes, but defects rose by 2 per cent.
- A Taxes decreased by ...

- 7 Work with a partner.
  - A look at the information below.
  - B look at file 16 on page 106.

## A

1 This graph shows your company's operating costs over the last twelve months. Describe it to your partner so they can draw it. Explain the rises and falls.



2 Listen to your partner's description of their company's CO<sub>2</sub> emissions over the last twelve months. Complete the graph below.

