20 Safety first

Safety instructions

1 Read the labels. Which chemical:

1 needs a cool temperature?
2 can't be used near water?
3 needs safety glasses?
4 is poisonous?
5 needs a container with a tight lid?
6 catches fire and burns easily?
7 is dangerous for young people?
8 needs open doors and windows?

2 (20.1) Listen to different people talking about these chemicals. Match each one to the correct label.

3 (20.1) Listen again and complete the sentences.

1 You ..... put them on right away.
2 ..... lick your fingers and ..... drink it.
3 You .... open all the windows and doors when you use it.
4 This box .... get wet. Keep it away from water.
5 ..... light matches or cigarettes near this.
6 .... the lid is very secure.
7 ..... it in a cool place.
8 .... them to touch this box.

4 Which phrases have similar meanings?

1 You have to do it.
2 Don't do it.
3 You must not do it.
4 You must do it.
5 Never do it.

5 Give these instructions in different ways. Use the phrases in **4**.

Example

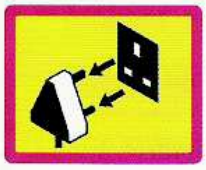
Keep your goggles on. – You have to keep your goggles on. You must keep your goggles on.
Never drink this. – You must not drink this. Don't drink this.

1 Keep your goggles on.
2 Never drink this.
3 Keep this box dry.
4 Make sure all the windows are open.
5 Don't allow visitors in here.
6 Make sure the lid is secure.
7 Never leave this bottle in a hot room.
8 Don't allow children to touch this box.

6 Read some more safety instructions. Match the instructions to the symbols.

a

b



c

1 Maintain the saw in top condition. Lubricate moving parts and sharpen the blades.

2 Check electric wires and cables for signs of wear.

3 Use a three-pin earthed* plug and do not operate the saw in wet conditions.

4 Disconnect the saw from the power supply before changing the blade.

5 Always use safety glasses when operating the saw.

6 Keep the safety guard in position at all times.

7 Never stand on the saw and don't overreach.

8 Keep children and visitors away from the saw.

9 Do not use the saw when under the influence of alcohol or medication.

d

e

f

g

h

i

earthed **BrE** – grounded **AmE**

7 Here are some similar instructions. Complete the instructions with words from the list.

keep oil allow remove unplug
operate never make sure wear

1 Maintain the saw in top condition. ...Oil... moving parts and sharpen the blades.
2 ..... electric wires and cables are in good condition.
3 Use an earthed plug and ..... use the saw in wet conditions.
4 ..... the saw before changing the blade.
5 ..... goggles at all times when using the saw.
6 Never ..... the safety guard.
7 ..... your feet on the floor and maintain good balance.
8 Do not ..... children or visitors near the saw.
9 Do not ..... the saw after drinking or taking medicine.

8 Work in groups.

1 Think of more dangerous things that need safety instructions. Make a list.

2 Write some safety instructions for the things on your list.

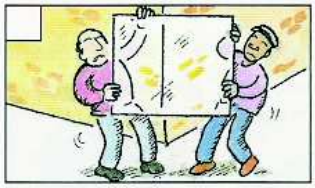
3 Read your instructions to the class.

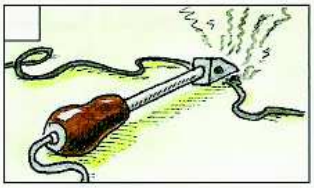
Accidents

1 Match the instructions to the pictures. Write the numbers in the boxes.

1 Take a break.
2 Don't bend it.
3 Look where you're going.
4 Don't cut the string.
5 Don't leave that there.
6 Stop pumping.





2 What will happen if these people don't follow the instructions?

Example
He'll fall asleep at the wheel.
The glass will break.

will

We use *will* to talk about the future. The contraction is *'ll*.
You'll burst the tyre.
It'll fall on your head.

3 Work with a partner. Take turns to be **A** and **B**. **A** – give an instruction from **1**. **B** – question it.

Examples

A *Take a break.*
B *Why?*
A *You'll fall asleep.*

A *Don't bend it!*
B *Why not?*
A *It'll break.*

4 20.2 Listen to some people talking about an accident. What happened?

5 20.2 Listen again and complete the sentences.

1 I ..... an accident.
2 I tripped and ..... my leg.
3 ..... you be OK?
4 Who ..... them there?
5 I ..... them there yesterday and ..... about them.
6 I ..... do it again.

6 Read the sentences in **5** again.

1 Which two sentences are about the future?
2 What's the negative form of *will*?
3 Which four sentences are about the past?

Past Simple: irregular verbs

Past Simple forms of regular verbs end *-ed*.
trip → *I tripped.*
But many Past Simple verbs are irregular.
have → *I had an accident.* *leave* → *I left it there.*
See page 117 for a list of irregular verbs.

7 Complete this report about the accident. Use the Past Simple form of the verbs in brackets ( ).

Date of accident: 9 June

Time: 10.15 a.m.

Place: The storeroom in the machine shop

Employee: Fernando Sanchez

Description: On 8 June, the employee *took*[1] (take) ten 1.5 m steel pipes to the storeroom. He .....[2] (put) eight pipes on the racks, but he didn't finish the job. The telephone .....[3] (ring) and he .....[4] (stop) to answer it. The next morning, he .....[5] (forget) two pipes were still on the floor and he .....[6] (trip) over them. They .....[7] (be) sharp and they .....[8] (cut) his leg. The cut was 40 mm long and it .....[9] (need) a bandage. The employee .....[10] (go) home after the accident but he .....[11] (come) back to work on 10 June. Luckily, he .....[12] (be) OK.

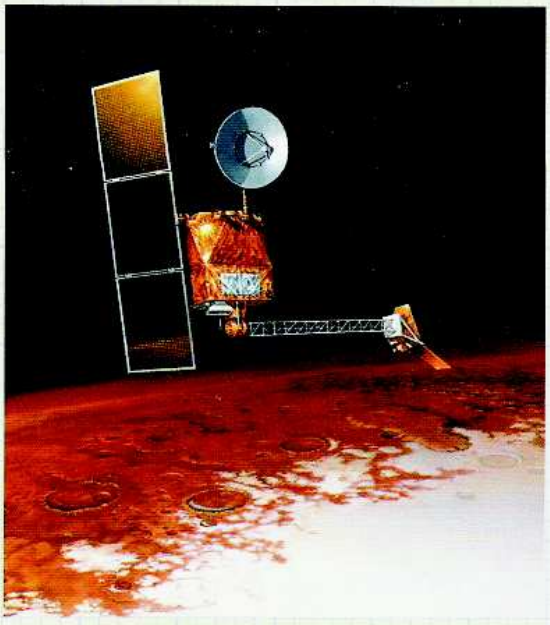
Conversions

1 Do you ever use imperial measurements (for example, inches, feet, pounds)? Who uses them?

2 Read about the Mars Climate Orbiter.

1 What was it designed to do?
2 What went well?
3 What went badly?
4 What height did it need to be?
5 What height was it?
6 What was the communication problem?

The Mars Climate Orbiter was designed to orbit Mars. Its launch on 3 January 1999 went well and so did its trip to Mars. But its landing went badly on 9 September 1999, and something went wrong. NASA lost communication with the Orbiter and it went missing. It needed to be at a height of 85 kilometres (53 miles) or more above the surface of Mars. It was only 60 kilometres (37.5 miles) high. There was a communication problem between two teams of scientists. One team used imperial measurements and the other used metric.



3 Look at these measurements. Which are imperial and which are metric? How do you say them?

1	km/h	9	tonne
2	yd	10	in^2
3	°F	11	gal
4	mm	12	kW/h
5	lbs	13	psi
6	m^2	14	°C
7	ft^3	15	kg/cm^2
8	kJ	16	mph

4 Which are units of:

1	speed?	5	temperature?
2	weight?	6	volume?
3	length?	7	pressure?
4	area?	8	energy?

5 20.3 Listen and complete the conversions.

1 100 mph = ... km/sec
2 1 tonne = ... lbs
3 1 yd = ... mm
4 1 m^2 = ... in^2
5 1 ft^3 = ... gal
6 1 psi = ... kg/m^2
7 100 kJ = ... kWh
8 0°F = ... °C

6 Work with a partner.
A – look at the information below.
B – look at the information in file 15 on page 106.

A

Ask your partner questions and write the figures. Answer your partner's questions.

Example
What's 400 kilometres per second in miles per hour?

1 400 km/sec = ... mph
2 1,000 lb = 0.4536 tonnes
3 1,000,000 mm = ... yards
4 100,000 in^2 = 64.52 m^2
5 100°C = ...°F
6 1 British gal = 0.1605ft^3
7 100 kg/cm^2 = ... psi
8 1 kWh = 3.6 kJ