



Teacher guide

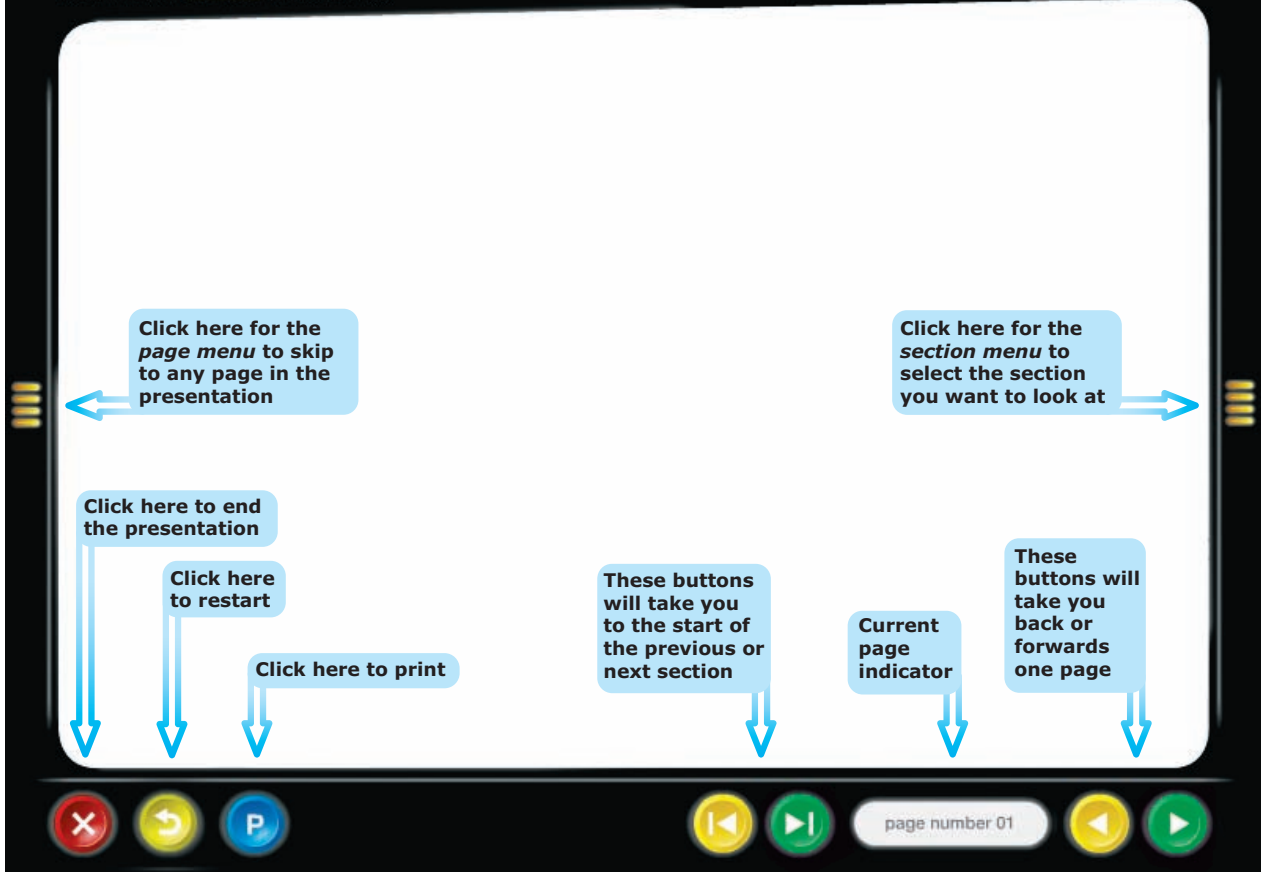
**Workplace hazard awareness course:
teacher guide**



We've set up this guide so that you can deliver the course as easily as possible. There's a screenshot of every screen in the presentation, and you'll also find detailed notes, model answers, real life stories and teaching tips.

We suggest that you print off this guide and have it in front of you as you deliver the presentation.

WORKPLACE HAZARD AWARENESS



When you open the course presentation file, you'll see various buttons around the frame.

Please take time to familiarise yourself with what the buttons do and practice using them before you present the course for the first time.

If you want the PC presentation to fill your screen, first zoom in (right-click your mouse and select 'Zoom In'), then zoom out (right-click again and select 'Zoom Out').

You'll find that some of the screens have extra features.



Where you see a flashing arrow, this tells you there are bullet points you can reveal one by one. This gives you the chance to discuss each point before moving on to the next. To move through the list, click on the centre of the screen or use the right arrow on your keyboard



Where you see a triangle alongside the word 'next', this tells you there are a number of pictures. You can discuss a picture and move on to the next by clicking on the arrow on the screen



The rolling picture sequences will pause or play again if you click this hold button



If you want to start an on screen exercise again use the reset button to clear your answers

Throughout the course presentation there are also:

- interactive exercises that allow you to drag and drop answers
- films that begin when you click on the clip
- screens where you can click on items and information boxes pop up

Before you run the course presentation, you may find it useful to get a feel for your students' attitudes towards health and safety. This isn't essential, but if you want to do this you can use the **Questionnaire** that's in the resource folder. You can then use it again at the end of the course to see if your students' attitudes have changed as a result of completing the course.

You'll find other suggestions for extension work throughout this guide. Each item of extension work has a title, to help you find it easily in the resource folder. So, you'll know you've got the option of giving your students extra work on a topic when you see this icon...



We've included other icons to help you navigate this guide:



This icon lets you know when there's a class activity



This icon tells you when students should complete an assessment



Where there's a real life story on the consequences of poor health and safety, you'll see this icon



This icon shows approximately how much time you should spend on each screen, including any course work or discussion

Section 1

What is health and safety?

Aims of this section

To help your students understand that health and safety should enable activities, not prevent them taking place

Objectives

- To introduce your students to what is meant by 'health and safety'
- To explain why health and safety is important
- To discuss the benefits of good health and safety and the consequences of poor health and safety
- To highlight the importance of training
- To motivate your students to make safety a priority in their working lives

Overview

- Watch a short film clip of a skydiver
- Discuss the connection between skydiving and health and safety
- Discuss what makes skydiving safe
- Ask your students what they do that's fun or exciting – use a flipchart or board to record their answers
- Discuss what makes these activities 'risky' and how they can keep themselves safe
- Discuss what dangers people face in their jobs
- Look at some accident statistics
- Learn about ten young people who died at work and the case of Steven Parsons
- Watch 'Jennifer's story' – how an injury can change your life forever
- Assessment exercise – identify three benefits of good health and safety and three consequences of poor health and safety
- Summary – being risk aware helps you stay safe

Section 1

What is health and safety?



5 mins



screen
page 02

To begin the course, click on the screen to play the short film clip of the skydiver. Once the clip's finished, ask your students what they think the connection is between skydiving and health and safety.

Some might see no connection at all, while others might think that it's a 'risky' thing to do and should be banned for health and safety reasons.

Your students have probably never thought about it before but, even though it looks like a dangerous thing to do, it's because of health and safety that things such as skydiving are relatively safe. People who skydive don't simply put a parachute on their backs and jump out of a plane!

You should now lead a discussion about what skydivers do to make sure they don't die or injure themselves. In the discussion, draw out the following points:

- they have extensive training
- they check the weather conditions and wind speed to make sure the dive is safe

- they check that their parachutes are in good working order, that their harness fits correctly, and that they can locate the rip cord handles – before they get on the plane
- they get someone else to double check their gear
- they carry altimeters and know when it's safe to pull the rip cord on their parachutes
- they have two parachutes in case one fails
- they constantly check – in freefall and when their parachute has opened – that their air space is clear
- they're trained in how to land properly so that they don't hurt themselves when they touch down

You could also add that skydivers sometimes wear protective headgear so that they don't injure themselves when they land, although this isn't a legal requirement in all countries.

You should now stress the point that it's because of health and safety that activities such as skydiving hardly ever result in injuries or deaths. In short, health and safety protects and saves lives.



What do you do that's fun, exciting and 'risky'?



It's unlikely that any of your students will have skydived before. But most of them will do sports or other activities that are fun and exciting.

So, get your students to tell the class what they do that gives them a thrill or a kick. Once you've got some feedback, ask them what makes these activities 'risky', how you could be hurt, and what you can do to keep yourself safe.

We suggest that you also discuss at least one or two pictures in the sequence now playing in the presentation. Stop the sequence by clicking on the 'pause' button, have your discussion, then press 'play' to start the sequence running again.

Here are a few discussion points for some of the activities shown in the sequence...

Ice skating

- ✗ You could fall on the ice and get bruises, cuts, sprains and broken bones, or knock over other skaters, injuring them and possibly yourself too
- ✓ Skating rinks have marshals who watch over the skaters and try to make sure that accidents don't happen – if they do, they then take charge of the situation
- ✓ Everyone skates in the same direction, reducing the chance of collisions
- ✓ There are limits placed on the number of people who can use the skating rink at any one time

Motocross

- ✗ You could fall off your motorbike and injure yourself, crash into other riders, trees or bushes
- ✓ People who do motocross wear lots of protective gear, including helmets, padding for their chests and necks, shin, hand and knee guards, gloves and heavy boots
- ✓ Motocross courses have barriers and safe distances between spectators and riders

Swimming

- ✗ You could drown
- ✗ You could injure yourself if you slip on the diving board, or if your dive goes wrong in mid air and you hit the water badly
- ✗ Because other people share the same water as you, there's the chance you could pass on diseases to each other
- ✓ There are lifeguards to watch over and rescue you in case things go wrong
- ✓ There are strict rules about what you can and can't do in and around the pool, eg run, push other people in, swim while others are diving
- ✓ To stop the spread of diseases, chlorine is put in the water, you have to take a shower before and after you've been in the water, and you're not allowed to urinate in the pool

Motor sports (such as autograss, stock car racing and banger racing)

- ✗ As with any activity that involves driving a car, there's a risk of injuries, cuts and bruises if you crash
- ✗ Your car could also catch fire if it's involved in a crash
- ✓ You have to wear a crash helmet and seatbelt
- ✓ Cars are fitted with roll-cages in case they overturn, and are stripped of things such as dashboards so that there are fewer things to hurt yourself on if you do crash
- ✓ Cars are often fitted with a fire extinguisher that you can reach easily, just in case it catches fire

Skateboarding

- ✗ You're at risk of falling off the board, colliding with other skateboarders and injuring yourself, particularly your head, arms and legs
- ✓ To protect themselves, skateboarders wear helmets on their heads, as well as pads on their knees and elbows
- ✓ Skateboarders use designated skateboard parks because they're much safer than busy roads or where there are lots of pedestrians

You may find that a large number of your students get most of their fun and excitement from playing computer games. On the face of it, they might think there aren't too many risks involved. They'd be wrong.

It's well known that if you use your mouse or joystick too much you can get a repetitive strain injury. And staring at a computer screen, combined with bad posture, can give you headaches and other aches and pains, some of which can be long lasting. So, even here, there are things that you can do to keep yourself healthy and safe, such as:

- taking regular breaks
- sitting in a comfortable position
- not using the mouse or joystick too much

Of course, whatever activities your students do, when they first start doing them it's best to be taught by someone who's experienced and can tell them how to do things safely.

Section 1
What is health
and safety?



5 mins

Things that are fun and exciting aren't the only things that can be risky – what people do at work can be dangerous too



screen
page 04

Things that are fun and exciting aren't the only things that can be 'risky'. Almost anything you do carries some degree of risk, from crossing the road to cooking your dinner. And, of course, what people do at work can be risky too.

The presentation now shows a series of people in different jobs. If you want to discuss a particular picture, stop the sequence by clicking on the 'pause' button. Click 'play' to start the sequence running again.

When you have your discussions, remember to ask your students what dangers the worker might face in their job, how they could be harmed, and what things should be done to make them safe.

You could point out, for example, one of the main dangers that chefs face is slips caused by spills on the floor. To help stop them happening:

- spills should be cleaned up immediately
- kitchen floors should be made from an anti-slip material
- the shoes that chefs (and other kitchen staff) wear should also be anti-slip



It's because of health and safety that 'risky' things don't often go wrong

But what happens without it?

The presentation now underlines the fact that because of health and safety 'risky' things don't often go wrong. After a couple of seconds, it then raises the question 'But what happens without it?'

This is what we look at next in a series of statistics on accidents at work.

Section 1
**What is health
and safety?**



1 min

Some facts about poor health and safety...

➡ **Every day, more than 1,500 people in the UK say that they've got an illness that's been caused or made worse by work**



**screen
page 06**

When you go over these statistics, you could give the numbers more impact by using real life comparisons.

Here, for example, you could say that 1,500 is the number of pupils in a typical secondary school.

Section 1
**What is health
and safety?**



1 min

Some facts about poor health and safety...

➡ **Each year, more than 300,000 people
in the UK are injured at work**



**screen
page 07**

Here you could say that the number of people injured at work each year in the UK (300,000) is about the same number as the population of the city of Leicester or three times the capacity of Wembley football stadium.

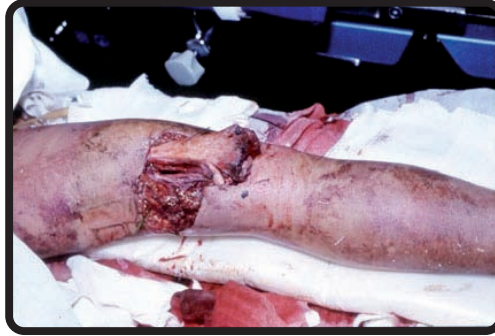
Section 1
What is health
and safety?



1 min

Some facts about poor health and safety...

➔ **Each year in the UK, on average
five under 19s are killed and over
6,000 are injured at work**



**screen
page 08**

Here you could say that the number of under 19s injured at work each year in the UK is enough people to fill 14 jumbo jets.

The statistics should go some way to impress on your students that there are real dangers at work. They should also appreciate that when they start work, or if they're working already, they could come into contact with things or situations that could make them ill, injure or even kill them.



Dead before their time

Steven Parsons

Killed aged 18

Crushed under a lorry

Source: Hazards – the workers' health and safety magazine, www.hazards.org/youngworkers

**screen
page 09**

To drive this point home, the next screen runs through a list of 10 young people who died at work in recent years in the UK.

You could make the point that these young men represent just a fraction of the people who die at work every year.

Try bringing this alive even more for your students by asking them to imagine how they'd feel if one of their friends or family died in this way. You could also get them thinking about how the families feel when they're told about the tragic deaths of their sons.

After the final name on the list appears, that of Steven Parsons, the screen shows a picture of Steven holding his 18th birthday cake.

Next to the picture there's a short paragraph about Steven's background. After about 15 seconds, another paragraph appears. This gives the details of Steven's tragic death.



**Even if you don't die,
an accident can ruin
your life forever...**

It's important to point out to your students that while the chance of them being killed at work is slim, there's a much greater chance that they could be injured. And having a serious injury isn't something to take lightly – it can affect the rest of your life.



Jennifer's story

Lost Youth

The story of an injured young worker

This young worker video is © WorkSafeBC (the Workers' Compensation Board of British Columbia) and used with permission. Copies of the video and other workplace health and safety materials are available free of charge at WorkSafeBC.com

**screen
page 11**

Now, play the film clip of Jennifer's story*, which recounts an accident in which a Canadian teenager lost three of her fingers. You start the film by clicking on the clip area.

The reconstruction of Jennifer's accident is very hard hitting, bloody and graphic, so we suggest you preview the clip before you show it to your students. If you think it could cause any of your students distress, you could simply show the interviews that precede the reconstruction and then move on to the next screen.

Once you've played the clip, discuss some of the points raised in it, such as:

- the cause of the accident (Jennifer wasn't trained in how to use the machine, what the different parts did, how to clean it and so on, so it wasn't her fault)
- the ongoing trauma and psychological effects of the accident on Jennifer and her mother

- the financial award she received as a result of her accident in no way compensated her for the loss of her fingers

You could end the discussion by asking your students how they themselves would react if the accident happened to them, how their friends and family would feel, how it would affect their lives in the future and so on.

This clip is from a Canadian source, so remember that where it says '34 young workers are injured every working day', this refers to Canada, not the UK.

*This young worker video is © WorkSafeBC (the Workers' Compensation Board of British Columbia) and used with permission. Copies of this and other workplace health and safety materials are available free of charge at WorkSafeBC.com.

Section 1
**What is health
and safety?**



10 mins

Getting health and safety right

Getting health and safety wrong

**screen
page 12**



For their assessments, students must identify three benefits of good health and safety (getting health and safety right) and three consequences of poor health and safety (getting health and safety wrong).

By this stage in the course and with what they've covered so far, your students should be in a good position to come up with at least some of the answers on their own.

Even so, put them into groups and get each group to come up with as many answers as they can. You could also add an element of competition and see who can come up with the most correct answers in a set time.

Alternatively, ask them to 'pair and share' in twos or fours, or split the class into two and get one half to suggest some benefits and the other to come up with some consequences.

Finally, get feedback from the groups.

The answers you should expect for the benefits include:

- people don't get hurt at work

- people don't get killed at work
- people don't get illnesses that are caused by work
- fewer injuries at work
- fewer deaths at work
- fewer illnesses at work
- a safe and healthy working environment
- you can do your job safely
- being aware of dangers at work

The typical consequences you should expect include:

- people get hurt at work
- people get killed at work
- people get illnesses that are caused by work
- more injuries at work
- more deaths at work
- more illnesses at work
- an unsafe and unhealthy working environment
- you can't do your job safely
- being unaware of dangers at work

Because the statistics that we looked at earlier in this section are consequences of

poor health and safety too, you should expect a few students to use some of these as their answers.

Now, get your students to record three of the benefits of good health and safety and three of the consequences of poor health and safety (**Evidence sheet 1**). If your students are taking the qualification, they can then use the completed sheet (or a photocopy of it) as evidence that they've met this assessment requirement.



Why health and safety's important for you

- ⇒ **There's not much chance of something bad happening to you at work**
- ⇒ **But because you're young and don't have a lot of experience, it could be you**
- ⇒ **So it makes sense to know more about what could hurt you**

That's what this course is all about...

At the end of this first section of the course, it's important to impress on your students why health and safety is essential for them:

- statistically, the chance that they'll be hurt at work is quite small
- even so, they're more likely to be harmed because they're young and don't have a lot of experience
- it's therefore sensible to be aware of what could harm them

We've set up this screen so that you can reveal the various bullets one at a time by clicking on the screen or using the right arrow on your keyboard. This gives you the opportunity to talk around and discuss the different points.



Design a 'hazard' poster

It's also important that your students don't feel helpless when it comes to their own health and safety, so you should encourage them by saying that simply being aware of the dangers they could face at work goes a long way in keeping them safe.

Section 2

Hazards and harm A

Aims of this section

To help your students understand the concepts of 'hazard', 'harm' and 'risk'

Objectives

- To help your students spot hazards
- To define 'hazard', 'harm' and 'risk' and give examples of each
- To emphasise to students that they need to be risk aware not risk averse

Overview

- Activity – Fake or For Real
- Activity – hazard-spotting exercise where students look at four scenes and guess what happens next
- Discuss 'a hazard is anything that could harm' – illustrate using the pictures supplied and everyday examples
- Activity – identify hazards in the classroom and the harm they could cause
- Discuss the concept of risk using four everyday examples
- Activity – look for a local news story about an accident at work
- Summary – good health and safety is about being aware of hazards and risks, not about avoiding them

Section 2 Hazards and harm A



10 mins

Fake or For Real?

Can you tell what's true and what's false about health and safety?



screen
page 14



Begin Section 2 with the **Fake or For Real** quiz. Here we look at what's true and what's false in health and safety. You'll find the answers, background information and cards for this in the resource folder. Print off as many voting cards as you need. If you'll use them a few times, it's worth mounting them on cardboard.

Split your class into groups and give each group one 'Fake' and one 'For Real' card. Read out the first statement in the quiz and give your groups the opportunity to discuss whether they think it's true (For Real) or false (Fake). Before moving on to the next statement, get each group to vote and keep a record of their answers. Once you've read out as many of the statements as you want, go over the answers and announce which group won the quiz.



1 min

Can you guess what's about to happen?

Jason is trimming a hedge. He hears a voice and turns round to see who it is.



He cuts through the cable. The chances are he'd be electrocuted!

screen
page 15



Activity 2 is a hazard-spotting exercise. You can get your students to do it in groups, individually or as a class.

To begin, ask your students to look at each of the four pictures in turn. You can either read the brief explanations of what's happening in the pictures or get your students to read them for themselves. You should then ask what might happen next and the harm that could be caused.

If you and your students are working on screen, you can click on each of the four pictures and an information box will pop up to the right of it. This shows the outcome and the possible harm caused.

If your students are using their workbooks to do this activity, you can show them the information contained in the pop-up boxes on an interactive whiteboard or projector screen. Alternatively, print off copies of the **What happened next?** file in the resource folder and give them to your students.

Section 2
Hazards and
harm A



1 min

Can you guess what's about to happen?

Tanya is helping out at her local garage. She's just opened a petrol can and is about to fill her tank when her friend starts welding. A spark then falls into the can.



There's an explosion. Both the petrol can and moped could catch fire. Tanya and her mate could both be badly burned.

screen
page 16

Don't forget to click on the picture to find out what happened next.

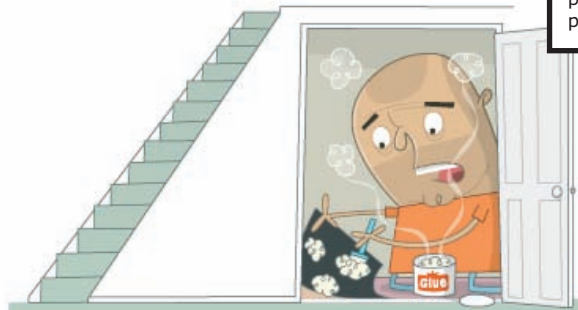
Section 2
Hazards and
harm A



1 min

Can you guess what's about to happen?

Ali is laying carpet tiles inside a cupboard under some stairs. He takes the can of carpet glue inside the cupboard with him because it's easier than having to go in and out all the time.



He breathes in the poisonous fumes. He could pass out or even die!

screen
page 17

Don't forget to click on the picture to find out what happened next.

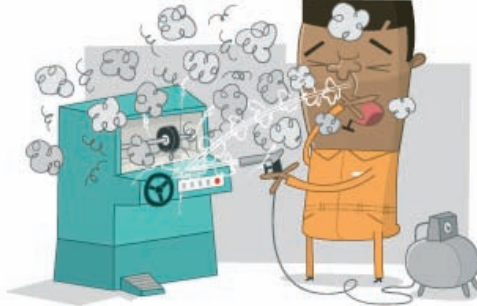
Section 2
Hazards and
harm A



1 min

Can you guess what's about to happen?

John is asked by his boss to clean dust from a machine. He's never cleaned the machine before and doesn't know it's wrong to use compressed air. So, he doesn't bother to put on his safety glasses or face mask.



Small specks of metal dust fly into his face. He could hurt his eyes or even go blind.

screen
page 18

Don't forget to click on the picture to find out what happened next.



What is a hazard?

A hazard is anything that could harm.



▶ next

We now give the definition of a hazard as anything that could cause harm. This is followed by pictures of a number of hazards in the home – the idea is to introduce things that students are familiar with.

Click on the arrow on the screen to go through this selection of pictures and discuss as many as you like with your students, remembering to draw out in the discussion what harm the hazards could cause. Feel free to expand on this selection, or get your students to come up with more.

Remember that almost anything can be a hazard, and that even the most seemingly harmless things can be dangerous depending on the situation. A drop of water, for example, is usually harmless. But if you had a few drops of water on your finger and you turned on an electrical switch, you could get a shock. Similarly, a peanut is usually harmless, but for babies or people with an allergy to peanuts, just one can be enough to kill.



1 min

Hazards aren't just things

A hazard can also be...

➡ something you do



**eg using your mobile and driving
at the same time**

**screen
page 20**

You should now make it clear that hazards aren't just physical objects. Certain things people do or the way they do them can also be dangerous.

These concepts might be quite difficult for your students to grasp, so we've given an example of each. In the first, we give the example of someone driving while using their mobile phone. This is illegal in the UK for good reason!



Hazards aren't just things

A hazard can also be...

⇒ the way you do something



eg not wearing protective goggles
in a science experiment

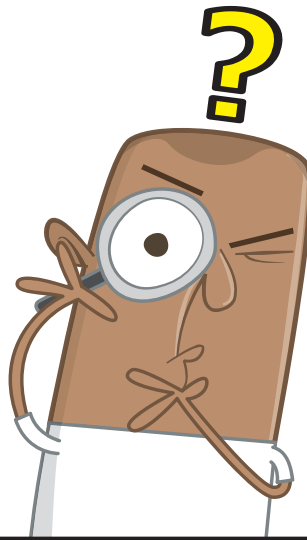
In the second, we use the example of not wearing your safety goggles in a science experiment.

Feel free to use any suitable examples of your own.



5 mins

How many hazards can you see now?



screen
page 22



Activity 3 asks students to identify hazards from where they're sitting. So, put your students into groups and get them to come up with as many as they can. Give them a few minutes to do this. Finally, get a representative from each group to tell you both the hazards they've identified and the harm that they could cause.

Because a hazard is anything that could cause harm, you could get any number of responses. Typically, answers might include electrical appliances, windows, tables, chairs and so on. While most of these could be dangerous, the likelihood of most of them causing harm is low. Even so, give your students free rein to exercise their imaginations.

It's worth remembering that, in schools, hazards are usually removed or tightly controlled, and students may not be aware of them as they rarely cause accidents. However, in the workplace, things may not be so well managed, and there are often distractions, such as machine noise, bright lights and traffic.

For many young people on work experience or starting a new job, there's a strong temptation to keep quiet and not draw attention to themselves. If this includes not asking questions about possible hazards, there's the potential for disaster.



What is harm?

- ➡ death
- ➡ injury
- ➡ illness
- ➡ damage to buildings, machines and so on

We now give a brief definition of harm in the form of a bullet list. Click on the screen or use the right arrow on your keyboard to reveal the four bullet points.



Survey of who's had an accident

This is a good point to make it clear to your students that harm isn't just about what you could do to yourself – it also includes harming other people, damaging property, buildings and so on.



What is risk?

Risk is the chance that a hazard will cause harm and how bad the harm will be.

- ➡ Some hazards are more likely to cause harm than others
- ➡ When a hazard does cause harm, sometimes the harm is serious and sometimes it isn't



▶ next

We now give a brief definition of risk.

Your students don't need to have an extensive knowledge of risk, although you should make it clear that there are two aspects:

- the chance of a hazard causing harm varies
- if the hazard does cause harm, how severe it will be also varies

Now, illustrate the two aspects of risk using the examples we've provided. When you click on the arrow on the screen, you'll move from one picture to the next.

High chance and little harm

If you dunk a digestive biscuit in your tea or coffee, the chance that you'll lose some of it in your drink is quite high. But the worst that can happen is you'll have soggy biscuit in your cup.

Low chance and little harm

The chance of a piece of paper cutting you isn't very high. And even if it does cut you the harm won't be serious.

Low chance and serious harm

If you take a ride on a rollercoaster, the chance that you'll have an accident is very low. But in the unlikely event that an accident happens when you're racing down the track at 100 mph, you'll probably be seriously injured or killed.

High chance and serious harm

If you're driving at 60 mph on icy roads and your tyres are bald, the chance of you skidding is high and the result would probably be a serious accident.

If you've got any examples of your own, use these in addition to the ones listed here.

If you want to illustrate the relationship between a hazard and a risk, you could give your students the following example.

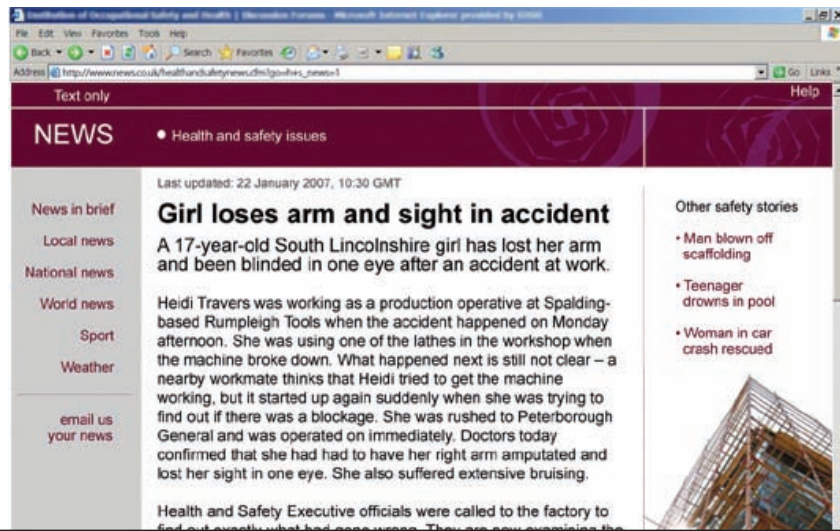
A room with a coal fire burning in the grate is a hazard. The main risk is that a piece of coal could fall out of the grate and cause a fire. You could cut out the hazard altogether by not lighting the fire, but then you wouldn't have the benefit of a warm room.

To take care of the risk and still have a warm room, put a correctly fitting fireguard in front of the fire and don't hang or place anything too close which could catch fire or get scorched.

Section 2
Hazards and
harm A



Use the Internet to find out about
an accident near where you live.



15 mins

screen
page 25



Activity 4 asks students to use the Internet or their local paper to find out about a recent news story of an accident at work. This could be an accident in which someone was seriously injured or killed, and could involve a young person or someone older. Ask your students to find out why the accident happened, who was responsible and, if possible, how it could have been prevented.

If you or your students need help finding a news story, go to www.corporateaccountability.org/Deaths/MainCounty.htm, which gives a list of deaths at work in England and Wales by county since 2001.

Alternatively, visit www.bbc.co.uk/whereilive or www.icnetwork.co.uk, click on where you live, and search for stories using keywords such as 'work accident' and 'workplace accident'.

You could get your students to do this activity in groups or in pairs. Alternatively, ask them to do it on their own out of school hours, and get them to bring in what they've found. You can then start the next session by discussing their homework.

In this activity, remember to use your discretion. It may be that someone in your class knows the person who was injured or killed.



Good health and safety...

- ➡ starts with being aware of hazards
- ➡ is about doing things safely
- ➡ isn't about trying to cut out all risks

In Section 1, you made the point to your students that being aware of hazards is the start of good health and safety.

But, while it's good to be aware of hazards, just because there's a chance of harm doesn't mean you should try to avoid the risk.

You should impress on your students that good health and safety isn't about trying to avoid risks completely (which is impossible) but about being aware of the hazards and doing things in a safe way.

To illustrate this point, return to the examples of dunking a biscuit, a piece of paper and a rollercoaster.

- If you like to dunk biscuits in your tea or coffee, just because you could end up with soggy biscuit in your drink obviously doesn't mean you shouldn't dunk.
- With the piece of paper, just because it could cut you shouldn't mean you try to avoid paper altogether!
- With a rollercoaster, just because you could be thrown out of it doesn't mean you shouldn't go on them. You're more likely to be injured or killed in a car on the way to a theme park than being hurt or killed on a ride once you get there. And, of course, we all happily accept the risk of travelling in cars.



Risk is OK!

If you want to do something and there's a risk of harm, it doesn't mean you shouldn't do it.



Now, make the point that doing something that's 'risky' is OK as long as:

- you've thought carefully about what you're doing and how it could affect you and other people
- you've reduced the risk to a level where the chance of being seriously harmed is low

Section 3

Hazards and harm B

Aims of this section

To help your students develop a greater understanding of hazards

Objectives

- To help your students identify health hazards and safety hazards
- To identify hazards at work
- To identify the causes of fire and what to do if a fire starts

Overview

- Activity – hazard-spotting in three work scenes
- Discuss the hazards in these scenes
- Activity – what does repetitive work feel like?
- Activity – what does manual handling feel like?
- Watch a short film clip of a fire spreading
- Assessment exercise – identify three causes of fire at work and three things you should do if a fire starts

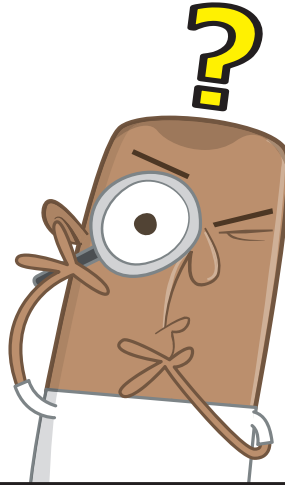
If at the end of Section 2 you set your students **Activity 4** for homework, remember to begin this section by looking at what they've come up with.

Section 3 Hazards and harm B



Spotting hazards

Here's a chance to see how good you are at spotting work hazards!



screen
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Before you begin **Activity 5**, explain that hazards are often split into two: health hazards and safety hazards. Generally, health hazards can cause illnesses or conditions which take time to develop (eg cancer, deafness, back pain), whereas safety hazards can cause injuries and happen more immediately (eg broken bones, burns, cuts).

Health hazards include manual handling, noise, vibration and stress. Safety hazards include working at height, equipment, electricity and confined spaces.

Hazards can overlap. For instance, a chemical such as benzene can cause cancer and is also flammable. And something as simple as wood dust can lead to asthma and is capable of causing an explosion.

Begin this section by putting your students into groups. Get each group to look at the first scene in **Activity 5** and ask them to see how many hazards they can spot in a given time. Do the same for the second and third scenes. Alternatively, present the activity on a

whiteboard, or get students to carry it out on their own, on screen or in their workbooks.

If you do the activity on screen, click on a hazard and brief information about that hazard will pop up. Bearing this in mind, if you want to do the activity as a competition between different groups, it would be better for your students to use their workbooks.

Because almost anything can be a hazard, we've only given information for the main ones. Remind students that the hazards they'll see aren't limited to these environments – they can be found in many different sectors.

Once your students have completed the activity, show them the information in the pop-up boxes on screen, or print off and hand out the **Hazards** file in the resource folder.

Talk around the hazard categories using the information and real life stories on the next few pages. This gives a broader view of the hazards than the information in the pop-up boxes.



10 mins



screen
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Scene 1

The hazards in the farm yard are:

- animals
- transport
- noise
- vibration
- working at height
- confined spaces

If you want more resources on the dangers of working on farms, visit www.hse.gov.uk/campaigns/farmsafe.



Animals

You wouldn't get on a horse without putting on a riding helmet. So why forget to wear one if it could protect your head if a horse kicked you?



Animals

All animals should be treated with care. Most of us only come into close contact with domestic animals such as cats and dogs, but many people work with animals on farms, in animal welfare, livestock farming and so on. Before working with animals, it's worth asking if you need any vaccinations.

Animals under stress, or who are ill or have young, may act unpredictably. This is when you're most likely to be injured by a kick, bite or scratch.

Some animals also carry diseases which can infect humans. It's important, therefore, to wash your hands after coming into contact with animals, their waste or their living areas.

Infection can happen in the most unlikely places. If a fisherman has an open cut on his hand and places it on the ground where a rat has urinated, he could catch leptospirosis. A simple waterproof plaster over the cut could protect him from infection.



Transport

Vehicles are the second biggest cause of death at work. In one year alone, there were 60 deaths and 5,300 injuries caused by vehicles at UK workplaces.

One of the main factors in transport accidents at work is vehicles and pedestrian routes not being kept separate. The fact is that accidents are more likely to happen if vehicles and pedestrians cross each other's path.

The main danger associated with lorries and HGVs is the inability of their drivers to see behind them when reversing. And when there's no-one to guide them safely into loading bays, unsuspecting pedestrians in the wrong place at the wrong time can be knocked over, perhaps even killed.

Forklift trucks are difficult to hear and can move quickly. Pedestrians often don't know they're near until it's too late.

On farms, children in particular are in danger of being harmed. Many have been run over by

tractors, or been killed or injured falling off tractors and trailers.

HGVs, forklift trucks and tractors are the vehicles most likely to be involved in fatal accidents.

You can get more information on transport accidents at work at www.hse.gov.uk/workplacetransport.



Real life story

Wayne, a 16-year-old, was helping out at a distribution depot owned by his friend's father. When his workmates went for a tea break, the teenager decided to have a go on a forklift truck. He accelerated too quickly, the forklift truck turned over, and he was trapped underneath. He had to have both feet amputated.



Noise and vibration

These are really the same thing. Noise you hear, while vibration can be felt anywhere on the body. They can both seriously damage health.

Hearing needs to be protected because once it's been damaged, there's nothing you can do to get it back.

If you have to raise your voice when talking to someone 2 metres away, it's starting to get noisy. The louder it gets, the less time you've got before it starts to damage your hearing.

Vibration can affect any part of the body, but is most likely to be felt in the hands. After working with a vibrating machine for more than 10 minutes, your hand would probably feel numb because the blood supply isn't getting through. The remedy is to stop and exercise your hand.

Too much vibration can cause permanent damage, resulting in 'vibration white finger'. There's no cure for it. The condition may begin with a tingling sensation, which turns to pain and a loss of feeling in the fingertips.

You can get more resources on noise and vibration at www.hse.gov.uk/noise and www.hse.gov.uk/vibration.



Working at height

Falls are the biggest cause of deaths at work. One wrong step can lead to death – survival could mean being crippled for life. In just one year, more than 3,700 people in the UK had a major injury caused by a fall at work.

Falls include falling from roofs, into deep trenches, from scaffolding and from ladders. Falls also include falling through things such as roofs and roof lights.

Falls can be avoided by using working platforms, having securely fitted guardrails and toe boards, using safety nets and wearing harnesses.

You can get lots of useful information and interactive resources on falls at www.hse.gov.uk/falls.



Real life story

Ahmed, a 16-year-old on his second day in his first job, was dared by his workmates to climb up a ladder and onto the roof of a block of flats. He fell and died.

Confined spaces

Enclosed spaces include sewers, underground tanks, road tankers, open pits, large pipes, trenches, caves, mines, cellars and cupboards under stairs.

An enclosed space becomes a 'confined space' if there's something harmful already in there (such as a gas) or you take something in with you (a chemical, for example). It could also be because of what you do inside, such as welding. Welding produces fumes and uses up oxygen. In a sewer, harm might be caused by a toxic gas or lack of oxygen.

If you paint the inside of a cupboard under the stairs, it becomes a confined space because the paint fumes may knock you out (remind your students about Ali gluing carpet tiles in the last section). However, the hazard doesn't need to be a gas or fumes. If you fell into a grain silo, it would be like being trapped in quick sand. You'd be unlikely to get out alive.

You can get more information on confined spaces at www.hse.gov.uk/confinedspace.



Real life story

Tony, a 21-year-old apprentice, was cleaning a storage tank at a boat yard using a flammable chemical. His boss didn't warn him about the dangers of using the chemical in a confined space. There was an explosion and 85 per cent of his body was burned. He died in hospital five days later.



10 mins

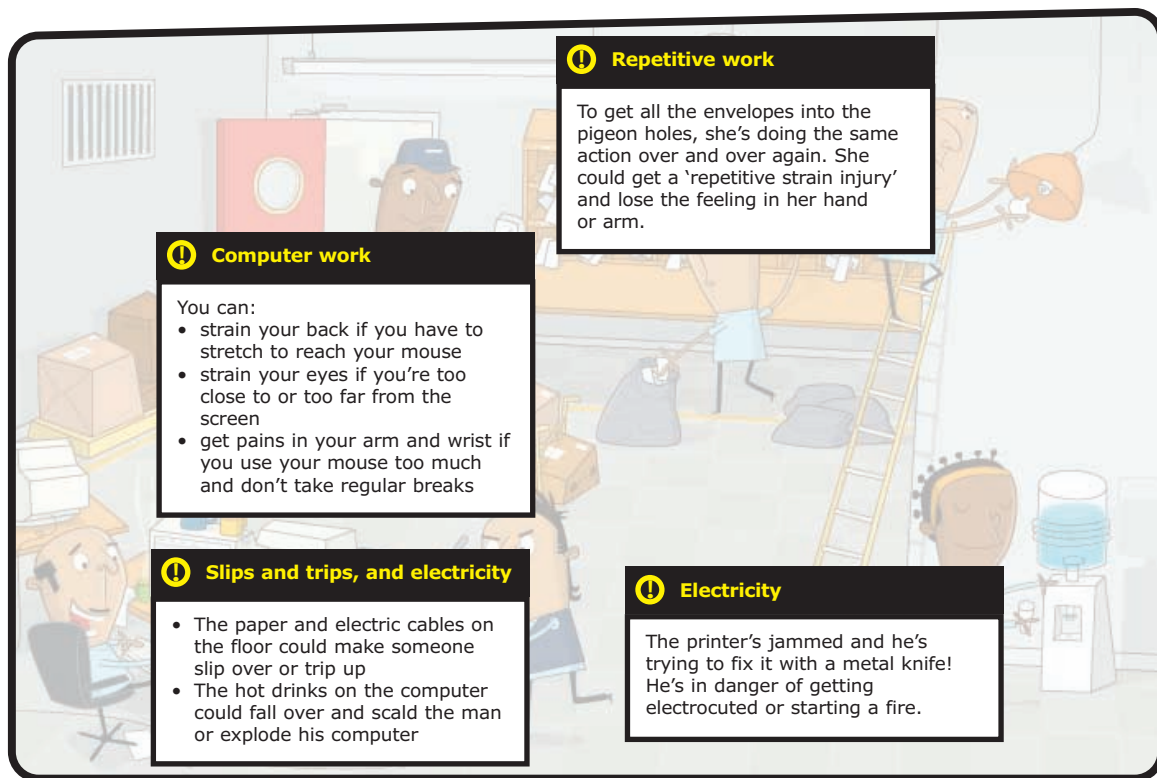


screen
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Scene 2

The hazards in the post room are:

- computer work
- electricity
- repetitive work
- manual handling
- working at height



Computer work

When you work on computers, there can be lots of repetitive work. Too much can lead to permanent injury of the ligaments and tendons in the arm, particularly at the wrist and elbow. Pain may also spread to the shoulders. To reduce the hazard, don't carry out too many keying actions or use your mouse too much, take frequent short breaks, use a properly designed desk, and sit on a chair that's correctly adjusted.

The other main hazard is eye strain from poor lighting or light reflecting onto the screen, making it hard to see.

It's worth remembering that computers are electrical appliances and are therefore electrical hazards too.

Electricity

We stop electricity from harming us by keeping it insulated. Electrical wires are covered by insulation and electrical switches are kept inside insulated plastic boxes such as wall sockets and light switches.

You could ask the students how electricity can cause harm. Electric shock causes the heart to stop pumping blood. High voltages can give you serious burns. Electrical currents can also jump gaps, so you don't always have to be touching live electricity for it to harm you. It's worth pointing out that, in the UK alone, about 30 people die at work each year in accidents involving electricity.

If an electrical cable is damaged and the wires are visible, it's very dangerous. If the metal parts of a damaged switch can be seen, it's also very dangerous. If a switch is wet, or if your hands are wet, it could be very dangerous and shouldn't be touched.

You can get more information about working safely with electricity at www.hse.gov.uk/electricity.

Repetitive work

This woman is twisting, bending and stretching all the time she's doing this job. When people keep doing an action, even when it feels uncomfortable, that's when permanent damage can happen.

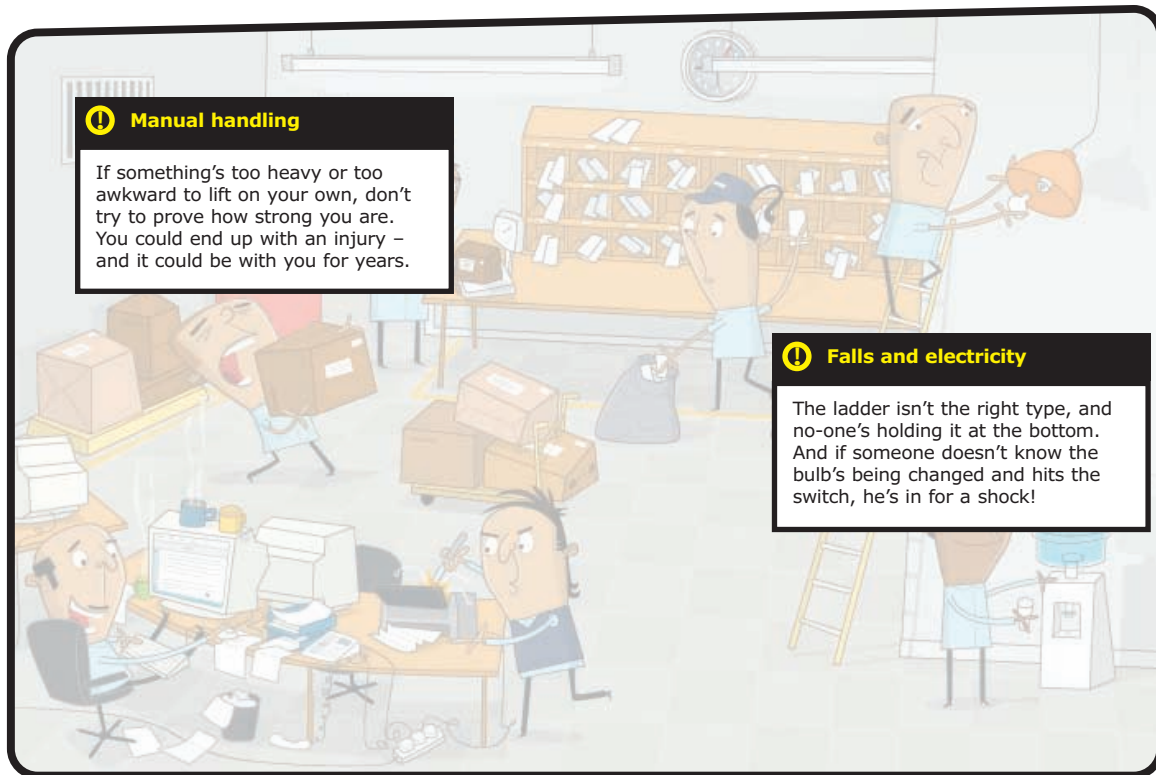
You don't have to be doing something very physical to risk a repetitive injury. For example, lots of mouse work with a computer can damage your wrist because it's permanently held slightly upwards.

People who get repetitive strain injury are usually damaged for life – operations only help ease the pain.

You can get a free leaflet on repetitive strain injury at www.hse.gov.uk/pubns/rsiindex.htm.

Slips and trips

Have a look at the notes for Scene 3.



Manual handling

Manual handling injuries are caused by too much or the incorrect amount of force. Poor posture, twisting and repetitive movements are common factors too. Manual handling should be avoided wherever possible, and other ways found to lift and move things. These include forklift trucks, pallet movers, conveyor belts and so on.

You can get free leaflets on manual handling at www.hse.gov.uk/pubns/manlinde.htm.



Real life story

Eddie, a 47-year-old, had an accident at work when he picked up a postage stamp from the floor. He was off work for two weeks due to a bad back. It's unlikely that it was a heavy stamp!

Eddie had previously worked in a warehouse, carrying and sorting heavy equipment. He started to have problems with his back, so he took an office job. When he bent over to pick up the stamp, the weight of his upper body caused the accident.

Working at height

Have a look at the notes from Scene 1.



10 mins

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Scene 3

The hazards in the garage are:

- pressure systems
- stress caused by bullying
- slips and trips
- machinery and equipment
- hazardous substances
- fire and explosion
- fooling around



Pressure systems

A balloon is a pressure system. When you pop it, the energy inside is released. If you blow it up then let go, that same energy makes it fly round the room.

A common pressure system is compressed air equipment. It's what's used to inflate car tyres. Unfortunately, it's sometimes wrongly used to blow dust away from machines, which can also blow dust into your eyes.

Compressed air spray guns can act like a needle and inject paint into your skin tissue. So, if you ever use one, never put your finger or eye over the nozzle.

It's important to point out to students that compressed air in a workplace situation is extremely dangerous. Severe injuries, and even death, have been caused when someone unintentionally released the pressure, and also by people fooling around with the equipment.

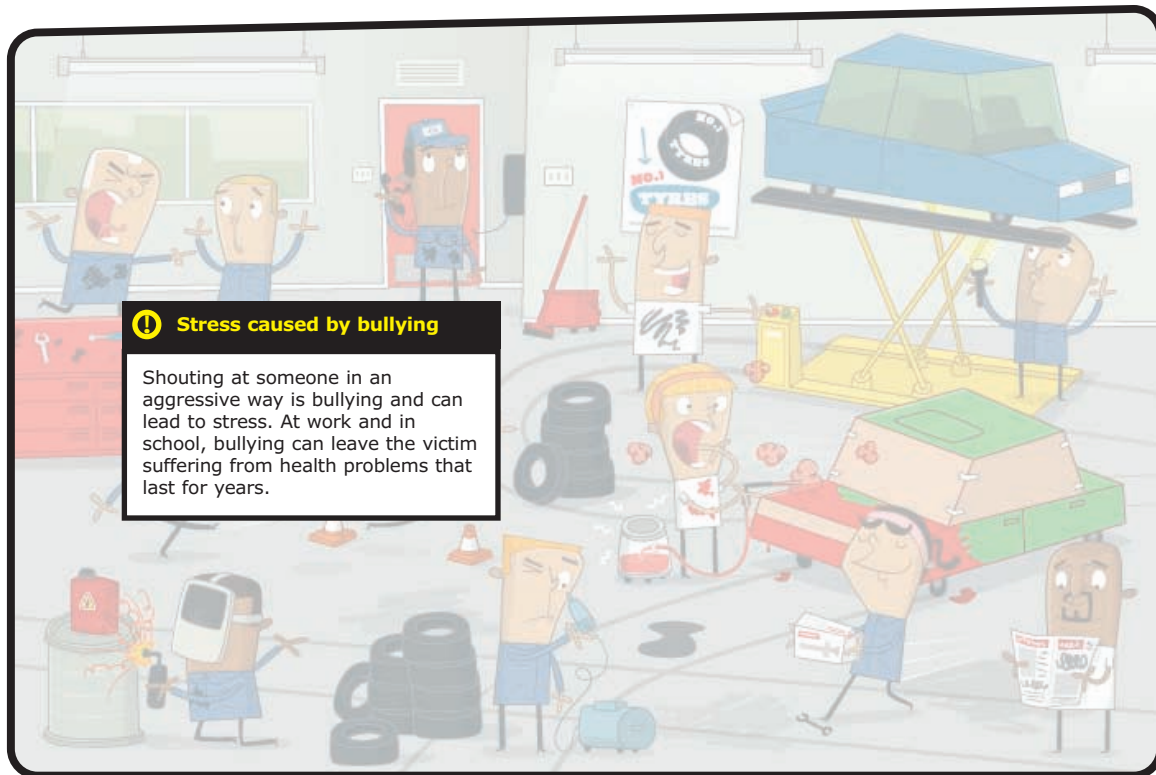
You can get free leaflets on pressure systems at www.hse.gov.uk/pubns/psindex.htm.



Real life story

Martine, aged 17, was a new sales assistant in a sports shop. She was shown by a colleague how to inflate a ball using a compressed air pump. When a customer asked for two basketballs, she used the compressor. When she inflated the first ball, Martine noticed that it wasn't getting as big as she thought it should. The ball then exploded, injuring the inside of her left arm from elbow to wrist, making it red, burnt and bloody.

The accident happened because staff hadn't been trained to set the correct pressures for different sized balls. Also, balls of different sizes and types had been stored together in one place.



Stress

Around half a million people in the UK believe that work-related stress is making them ill. And about 20 per cent think that their jobs are very or extremely stressful.

Stress is a negative reaction to too much pressure. It can build up slowly and be brought about by pressures at work or at home, or a combination of the two.

Stress can bring on panic and lead to exhaustion, headaches, muscle tension, rashes, appetite loss and difficulty sleeping. Worry is often associated with stress. Worrying brings a lack of concentration or errors in judgment, and at work this can be extremely dangerous, especially when driving or operating machinery.

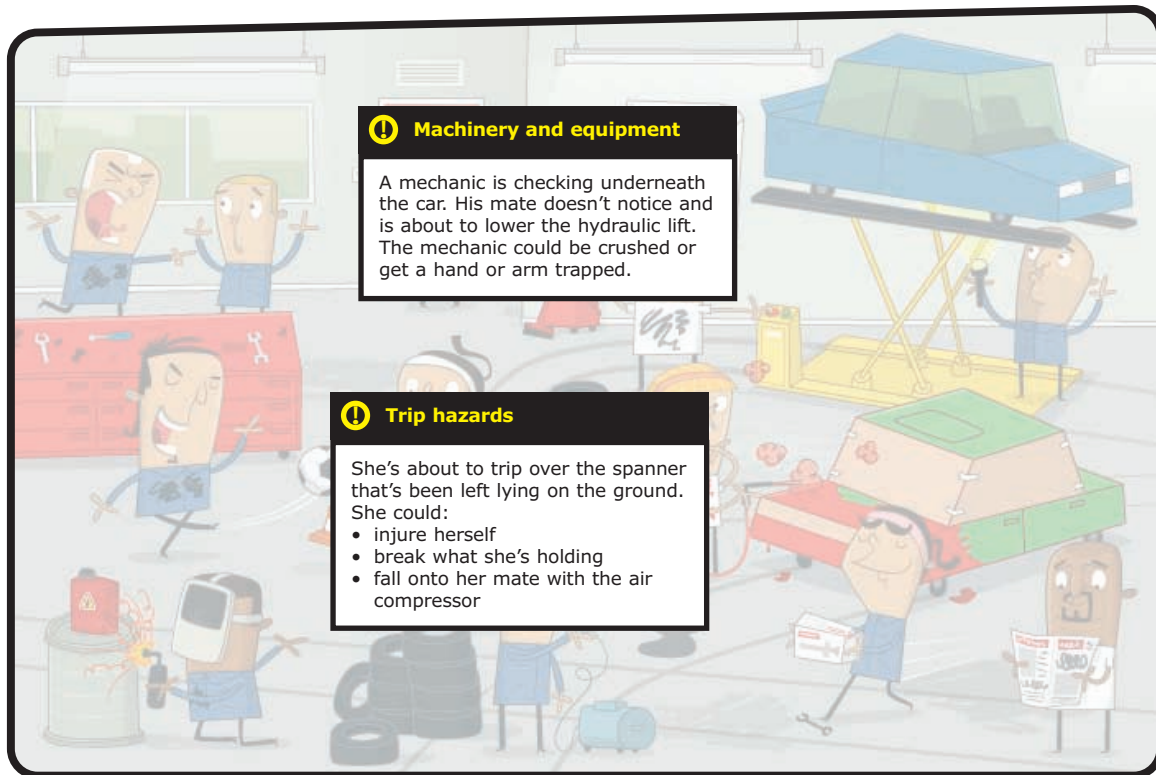
People can have too many demands placed on them and this can also be a source of stress.

For example, your manager could tell you that a job has to be finished by the end of the day or there'll be trouble. If no-one helps you and no-one suggests how you can finish the job in time, you're left with the threat that you'll be in trouble if you don't deliver.

People you work with can also cause stress. We all know about bullying and violence. Just as bullying isn't acceptable in schools, it isn't acceptable at work either.

If not dealt with by talking the problem through with a colleague or the boss, stressful work situations can become steadily worse. If prolonged, stress can lead to mental illness, circulatory problems and heart disease.

You can get more information and resources on stress at www.hse.gov.uk/stress.



Slips, trips and falls

Slips are caused by a surface that doesn't give enough grip. Some surfaces are naturally slippery, such as ice. Others become slippery if something is spilled on them. In a kitchen, for example, spilled fat can make the floor like a skating rink.

Often it isn't possible to see something that's been spilled on the floor, so there'll be no warning. For example, oil could leak very slowly from a machine.

Trip hazards are usually more obvious. Some are fixed, like an uneven floor or badly worn steps. Others are temporary, such as trailing electrical cables across the floor or bits of wood lying around a sawing machine. Trip hazards are usually down to someone who hasn't taken enough care. They know the hazard is there, but someone else walking by might not notice until it's too late!

You can injure yourself even from a small fall, such as missing a step on a set of stairs or falling off a chair you're standing on. An

incredible 10,000 serious injuries a year are caused by slips and trips in UK workplaces.

You can get lots of useful information on slips, trips and falls at www.hse.gov.uk/slips.



Real life story

Sonia, aged 36, walked into a shop, tripped on the step, fell forward, then banged her face on the corner of a counter. For the next two years she had many operations. She ended up with implants under her cheekbone, permanent damage to the nerves around her nose and mouth, and had to wear glasses with special lenses for the rest of her life.

Machinery and equipment

Machines can be hazardous in many different ways. In the workplace, most dangerous machines have guards placed around moving parts. Sometimes the guards break and aren't mended properly. Worse still, they're removed.

Some machines can be noisy, vibrate or get very hot. Some throw out waste material, which produces other hazards such as sparks, metal, dust and fumes. Large machines sometimes have gear wheels and pulley systems to control the speed. These can trap your fingers or hands. And some have rotating shafts, which can drag your hair or loose clothing into them.

You can get more information on the safe use of machinery and equipment at www.hse.gov.uk/equipment.



Hazardous substances

The most common 'hazardous substances' are chemicals, which can be solids, liquids or gases.

Some occur naturally, eg toxic gas in a coal mine, bacteria which can cause an infection. Some, such as engine exhaust fumes, are by-products of other processes.

Hazardous substances are found in most workplaces. You can be harmed if you breathe them in, they splash onto your skin or into your eyes, or if you swallow them. They can cause serious illnesses, including cancer and asthma, and skin problems.

Containers that have a hazardous substance inside them should have a sign on the label – an orange square with a black symbol. The label tells you about the risks and the precautions you need to take when using it.

A substance label can look like this...



One hazardous substance that's received a lot of attention in recent times is asbestos.

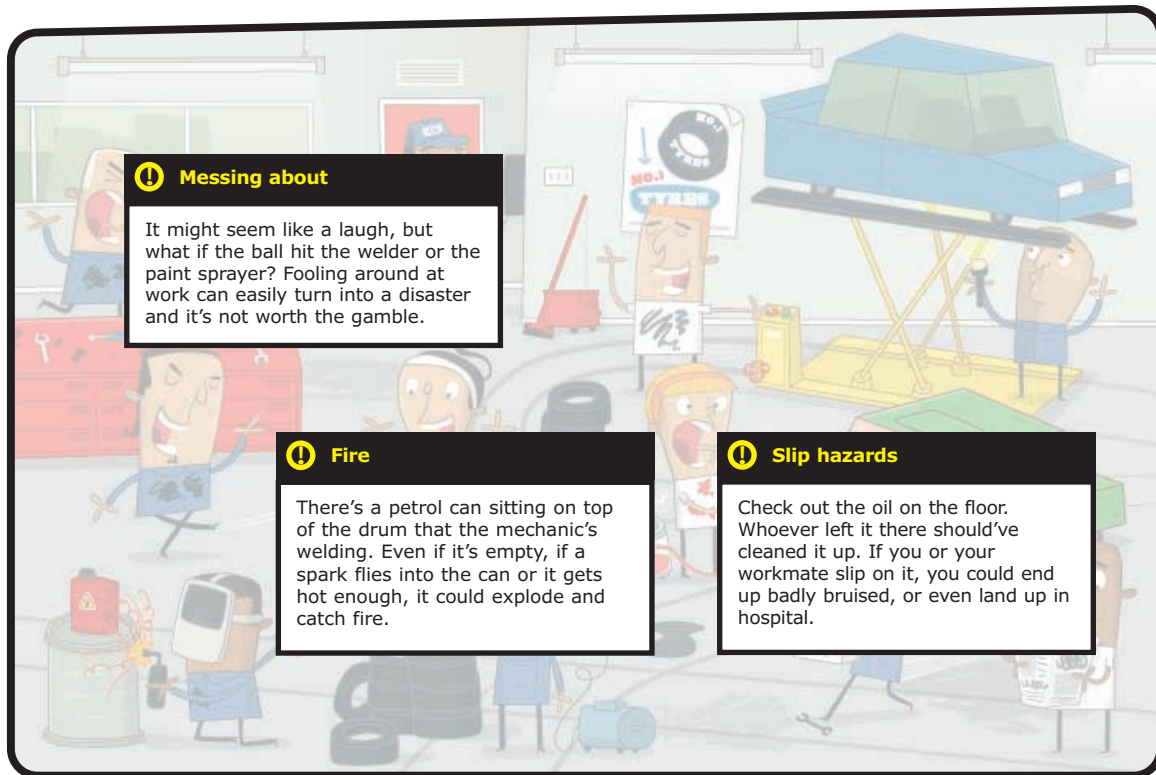
It's a natural mineral that was used for years in many industries for its ability to resist heat. Asbestos dust can't easily be seen by the naked eye, and if you breathe it in it can get trapped in your lungs. This can cause lung disease and cancer, sometimes many years later. Because of this, it's sometimes called the 'hidden killer'.

Laws now control where asbestos can be used and how it should be handled when it's destroyed. There's asbestos in lots of buildings, so if you work in building maintenance you could come into contact with it. And if you're a mechanic, you have to be careful when you're servicing brake pads and clutch linings. Both often contain asbestos.

You can get more information on hazardous substances at www.hse.gov.uk/coshh.



Link hazards to warning labels



Fire and explosion

Fire and explosion are closely linked. An explosion is simply a rapidly spreading fire. While fire can obviously burn you and create poisonous fumes that can kill, people in explosions are usually hurt by flying debris or trapped under collapsed buildings.

Both a fire and an explosion need three things:

- something to burn (fuel)
- air
- something to set them going, for example a spark or a match

If one or more of these three is missing, a fire can't be sustained and there'll be no explosion.



Real life story

Josh, an 18-year-old trainee mechanic, was helping to pour a mixture of petrol and diesel into a waste tank. A nearby boiler sucked in the fumes from this mixture and sparked a massive fireball that engulfed him. He died in hospital three days later.

Most things will burn at a high enough temperature. In a garage environment, vehicles have highly flammable fuel in their tanks. Certain types of paint and solvents, which can be used to thin paints, also burn very easily.

We talk again about fire after **Activity 7**. You can get more information on fire and explosion at www.hse.gov.uk/fireandexplosion.

Messing about

While fooling around and messing about aren't work activities, they're a type of behaviour that can cause serious accidents. You need to stress here that workplaces can be dangerous environments and clowning around can have severe consequences.



Real life story

Darren, a 19-year-old student, was walking out of the college workshop when he decided to jump up and grab the equipment that was used to move things around the training area. He lost his grip, fell to the floor and broke his wrist.



What does 'repetitive work' feel like?



We now look at how you can protect your back, bones and muscles by examining two of the hazards identified in the post room scene in **Activity 5**: repetitive work and manual handling.

To explore repetitive work, get your students to carry out the squeeze ball exercise (**Activity 6**). For this, you need to give a soft ball to each student or group of students. Any type will do, although sponge or stress balls about the size of a tennis ball are the best.

Ask students to hold the ball at shoulder level. With their arms stretched out, get them to squeeze and release the ball rapidly until it becomes uncomfortable.

When they stop, they may be surprised to find that their wrists aren't the only things that hurt.

The exercise demonstrates the pain associated with jobs that involve repetitive actions, such as:

- working on a production line
- stacking bricks
- packing bottles into crates
- typing

You could also ask students about how their hands can feel if they've done lots of sustained texting or gaming.

People who carry out repetitive tasks are in danger of 'repetitive strain injury' (RSI), which normally affects the hand or arm. The effects range from mild pains that come and go, to extreme agony and a permanent loss of strength.

You might find that giving all your students the chance to do this activity will take too long. One option might be to get some of your students to do this activity and the rest to do the manual handling exercise in Activity 7. Alternatively, get one group to do Activity 6 at the same time as the other group does Activity 7. Then, get them to swap over. This way, everyone gets the chance to do both activities.



What does 'manual handling' feel like?



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For **Activity 7**, you need an empty box. Any box will do, although it should be large enough so that your students have to spread out their arms to more than shoulder width to pick it up.

You can choose as many students as you like to do the exercise, as long as they carry it out on an individual basis.

Ask your students to pick up the box, carry it and put it down again, and to repeat the exercise a number of times, putting the box down in different positions. Ask them to pick it up and stop a few inches from the floor. This has the same effect as carrying out a job that demands repeated lifting, as your back doesn't get a chance to recover. Finally, get them to hold the box in front of them with their arms straight out. Here you could add a competitive element to the activity by timing everyone to see who can hold their arms out straight the longest.

You need to reinforce the principle that it's the frequency and the type of lifting that

causes long term damage to the back, not just lifting heavy things.

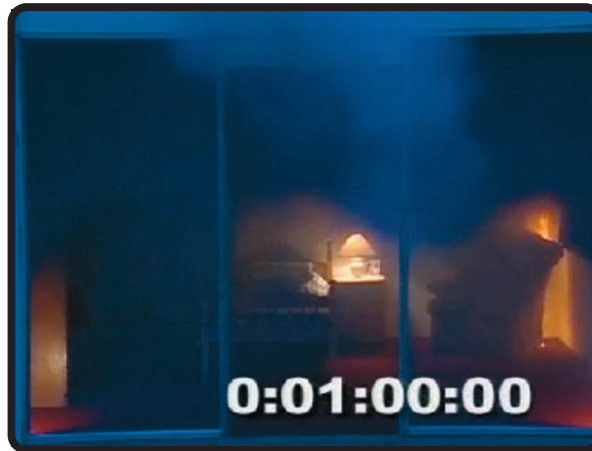
If you want to extend the activity, you could ask your students to suggest equipment that could help them lift and carry things. These include trolleys, pallet movers, conveyor belts and forklift trucks. You could also remind them that lifting things can often be done more safely simply by getting someone else to help you.

If you want more information and resources on repetitive work and manual handling injuries, visit www.hse.gov.uk/msd.

We now return to the subject of fire to give some depth to this important topic.



One-minute meltdown!



This clip is taken from 'A fire service guide to fire and smoke'
© Essex County Fire and Rescue Service 1999 and is used with permission

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Begin by playing the film clip, which shows a fire spreading through a typical bedroom. All the furniture in the room met current fire-resistance standards and was bought from a high street store.

Once the clip has finished, lead a discussion on what you've just seen. Important points to draw out include:

- the cause of the fire was probably someone accidentally dropping a lit cigarette down the back of the armchair
- the speed at which the fire takes hold would give you little time to get out to safety
- the smoke would probably kill you before the flames
- there's no smoke detector in the room

You could extend this discussion by asking your students how many fires they think occurred in the home in one recent year in the UK – the answer is 59,000. Most of these fires involved stoves and cookers.

You could also ask how many fires occurred at work in the same year – the answer is 33,000. These injured more than 1,300 and killed 38.

Finally, you could point out that with fires being so common and destructive, it's not surprising that almost anywhere you go – schools, sports centres, large shops, hospitals – there are signs telling you where the nearest fire exit is. Nor is it surprising to see fire extinguishers almost everywhere you go, just in case a fire starts.

If you want to show a longer clip about the dangers of fire, visit www.dundee.ac.uk/safety/firesafetydvd.htm.



What can cause a fire?

What should I do if a fire starts?



For their assessments, students have to identify three causes of fire in a named workplace. So, choose two or three workplace settings and lead a discussion on what these are. You could choose a garage setting like the one in **Activity 3**, where a fire could easily start if sparks from welding came into contact with petrol, oil or paint, or if someone dropped a match onto some oily rags. You could also choose a setting your students are more familiar with – their school, for example.

Alternatively, put your students into groups or 'pair and share' teams and see how many they can come up with on their own.

The main causes of fire at work are:

- not extinguishing cigarettes completely, and throwing matches away that are still lit
- bad and unsafe electrical wiring, and misusing electrical appliances

- letting piles of rubbish, paper, boxes and so on pile up
- electric and gas heaters
- cooking oil at too high a temperature and leaving pans unattended
- flammable gases and liquids, such as methane and white spirit
- equipment that gets very hot, eg soldering irons, welding kit and blow torches

It's also worth including arson, as some fires at work are started deliberately.

In a more general sense, fires are caused by people not being aware of fire hazards and, at times, being careless, so you should make these points too.

Now, get your students to list three of these causes of fire (**Evidence sheet 2**). If your students are taking the qualification, they can then use the completed sheet (or a photocopy of it) as evidence that they've met this assessment requirement.



For their assessments, students also have to list three things they would do if a fire starts. So, either lead a discussion and tease out the answers, or put your students back into groups and get them to come up with their own suggestions.

Examples of what you shouldn't do include:

- panic and run
- use a lift or escalator
- try to put out the fire yourself
- close doors and windows before you leave
- collect your belongings before you leave
- wait for your friends
- go back into the building if you've forgotten something or to look for someone

Examples of what you should do include:

- raise the alarm if you see a fire – either by shouting 'Fire!' or by setting off the fire alarm
- call the fire brigade
- stay calm and walk briskly
- leave by the nearest exit
- stay out of the building until you've been told it's safe to go back in

Get your students to write down three of the things they *should* do (**Evidence sheet 2**). They can then use the completed sheet as evidence if they're taking the qualification.

Section 4

Safety signs

Aims of this section

To help your students identify and interpret safety signs

Objectives

- To enable your students to identify the four main categories of safety signs
- To introduce them to 'fire fighting' signs

Overview

- Discuss the difference between prohibitory signs (red circle), warning signs (yellow triangle), mandatory signs (blue circle) and green squares (safe condition)
- Activity – match eight signs to eight descriptions
- Assessment exercise – draw two signs from each category and explain what they mean

Section 4 Safety signs



4 mins

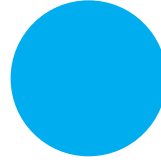
These are the four main types of safety sign...



A **RED** circle with a diagonal line across it tells you that you mustn't do something, for example smoke or use a ladder.



A **YELLOW** triangle is a warning sign. This tells you that you're near a hazard. Examples include poisons, noise and electric cables.



A **BLUE** circle tells you something you must do, such as wear a particular type of protective gear.



A **GREEN** square gives you information, such as where the fire exit or first aid box are, or where the emergency stop button is on a machine.

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Begin this section by telling your students that safety signs at work are just like road safety signs – both come in different shapes and colours, and both tell you things you need to be aware of to keep you safe.

A **red** circle with a diagonal line is a prohibitory sign – you mustn't do whatever action the sign shows.

A **yellow** triangle is a warning sign. This sign shows you that a hazard's nearby.

A **blue** circle is a mandatory sign. These signs tell you things you must do, such as wearing a particular type of protective gear.

A **green** square is a safe condition sign. These signs give advice. They may show the way out of a building or where the first aid box is, for example.

Section 4
Safety signs



1 min

There are also fire fighting signs...



These are **RED** squares and show the type of fire fighting equipment that's available and where you'll find it.

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There are also 'fire fighting' signs. These are **red** squares that show the type and location of emergency fire fighting equipment.

Section 4
Safety signs



Can you match each description to a sign?

- | | |
|--|--|
| A Can easily be set on fire | E This may blow up |
| B Meet here after you've escaped the fire | F You must wear a hard hat |
| C Risk of electric shock | G Dangerous poison |
| D You must wear ear protection | H Don't ride on forklift trucks |



reset



3 mins

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Activity 8 asks students to match eight safety signs to eight descriptions. If you or your students are working on screen, you can click and drag descriptions into the boxes underneath the signs.

The solutions to the exercise are:



G



A



H



E



D



B



F



C

Section 4
Safety signs



Can you draw two safety signs from each category and say what they mean?



6 mins

screen
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If your students are being assessed for the qualification, they'll have to provide evidence that they can identify two safety signs in each of the four categories. They do this by drawing the safety signs and explaining what each means.

Your students can use some of the safety signs in **Activity 8** to do this, although they need to know more to complete the assessment requirement. So, get them to think about what signs they've seen in school and, where relevant, their work experience site. Also, get them to think about signs they've seen in swimming pools, sports centres, cinemas, shopping centres and so on.

Alternatively, or in addition, choose a few of the symbols that are on the next page and discuss what they mean with your students. This sheet is in the resource folder (see **Safety signs**) and you can print off copies and give them to your students.

Your students can use **Evidence sheet 3** to draw and explain their chosen safety signs. They can then use the sheet as evidence that they've met this assessment requirement.



What does the sign mean?

Safety signs

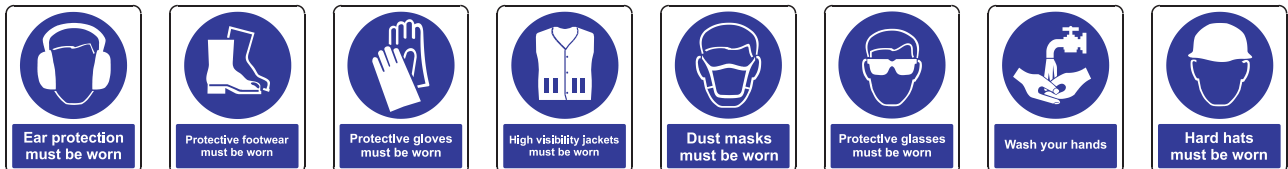
Prohibition



Warning



Mandatory



Safe condition



Section 5

Hazardous working conditions

Aims of this section

To make your students aware of hazardous working conditions, how they can cause harm, and how they can be improved

Objectives

- To help your students identify hazardous working conditions
- To give them the opportunity to carry out a practical hazard-spotting session in a work environment

Overview

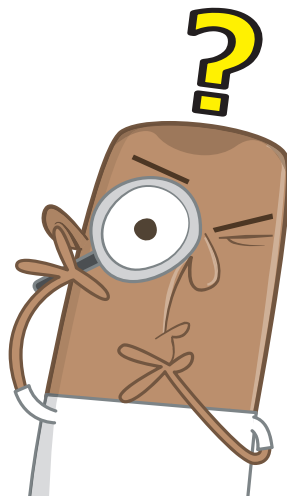
- Activity – students look at a workshop scene and identify dangerous working conditions
- Discuss the hazardous conditions students have identified
- Activity – students outline how the hazardous conditions they've identified could be improved
- Discuss what students can do to make sure they don't harm themselves and their workmates, ie prevent hazardous working conditions in their own work areas
- Activity – take students on a hazard-spotting tour of their school or work site
- Assessment exercise – list two health hazards and two safety hazards for two different work environments and outline how each hazard could cause harm
- Summary – discuss what students should do if they see a hazard at work

Section 5 Hazardous working conditions



Spotting bad working conditions

See how good you are at spotting hazards caused by bad working conditions!



screen
page 40



Activity 9 asks students to look at a workshop scene and identify dangerous working conditions.

Again, put your students into groups or ask them to 'pair and share' and give them a few minutes to see how many problems they come up with. Get feedback from the groups and see who has the most correct answers.



10 mins



screen
page 41

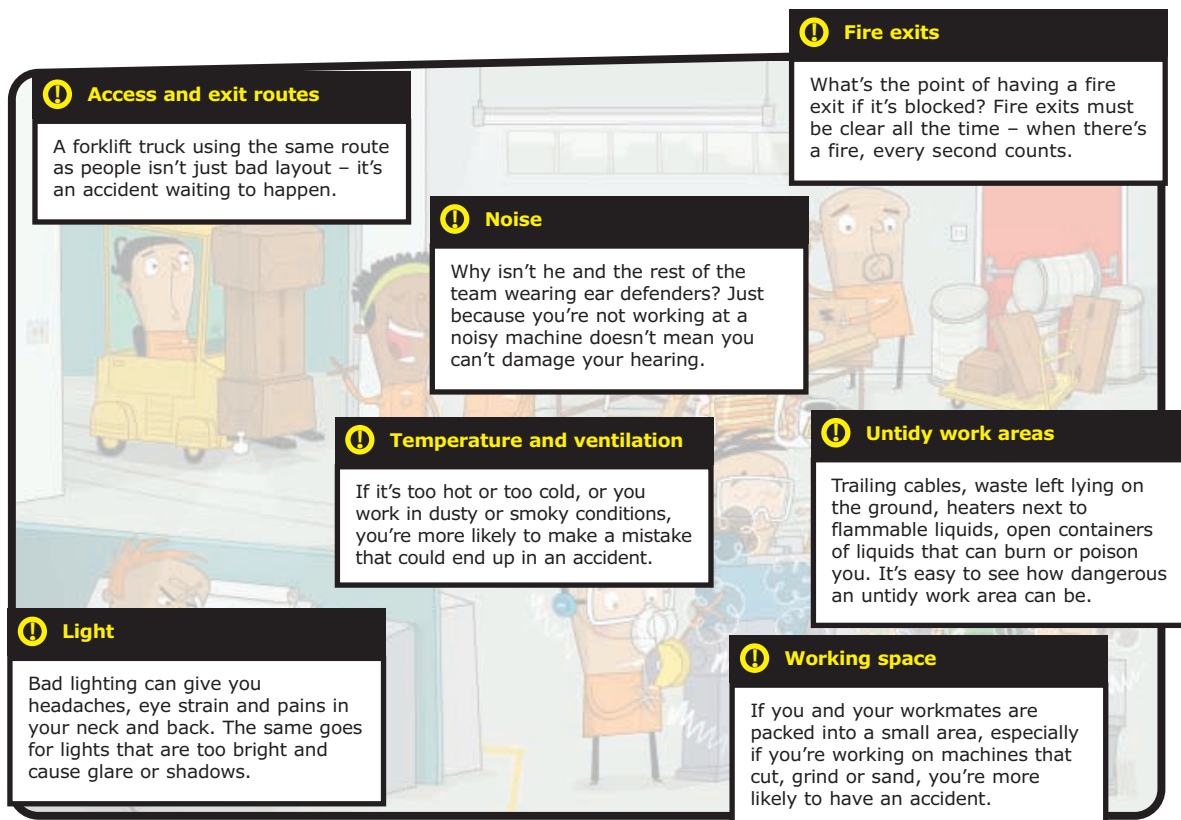
The hazardous working conditions are:

- untidiness
- bad lighting
- poor air quality
- noise
- not enough space to work in
- uncomfortable working temperature
- blocked and unsuitable entrances and exits

If you or your students carry out the activity on screen, you can click on the various hazardous conditions and some brief information will pop up.

Bearing this in mind, if you want to do this activity as a competition between different groups, and don't want to give them the option of clicking on the screen and getting the answers that way, it would be better for your students to use their workbooks.

Once you've completed the activity, you or your students can then click on the hazardous conditions and the pop-up information boxes will appear. Alternatively, print off and hand out the **Hazardous conditions** file that's in the resource folder.



Use the information in the pop-up boxes to talk around the various categories of hazardous working conditions.



Real life story

Paul worked in a room where there was lots of noisy machinery. At first, he didn't notice he was losing his hearing – he just kept on turning the TV up. But when he went to hospital, they found he had over 50 per cent hearing loss in both ears. He was just 37 years old. Paul never wore any kit to protect his hearing.

Section 5
Hazardous working
conditions



5 mins

If you were the boss, what would you do to make the working conditions better?

screen
page 42



Activity 10 is a follow up to **Activity 9**. Put your students back into their groups and ask them what they would do if they were the boss and it was their job to improve the hazardous working conditions they've just identified. After a few minutes, get them to feed back to the class and discuss their suggestions.

Here's a list of some things they could do:

- encourage workers to tidy up and keep their work areas mess free
- improve the quality of the lighting by fitting bulbs that are strong enough, placed in the right position and which don't give off glare
- improve the air quality and temperature by fitting air extraction to the machines and installing ventilation
- buy less noisy machines, move machines into a work area away from other workers, put the machines into soundproof booths, give all workers protective gear for their ears
- re-position the machines so that they're further apart
- remove obstructions from exits, put up notices telling people not to block the exits, check on a regular basis that exits are free from clutter
- keep pedestrians and vehicles apart by having separate routes for each

Section 5
Hazardous working
conditions



2 mins

It's up to you to keep your work area neat and tidy, so...

⇒ if you spill anything clean it up quickly



**screen
page 43**

You should now point out to your students that while they're responsible for their own health and safety, they're responsible for the health and safety of their workmates too. What this means, for example, is that you don't create hazardous working conditions for your fellow workers.

The main thing here is to keep your own work area neat and tidy. This might not seem like much, but it's a fact that messy work areas are one of the biggest causes of injury at work.

Discuss with your students how you could make sure your work area isn't dangerous. Get them started by talking about what can happen at home if, for example, they leave stuff lying around on the floor (slips and trips) or cups of tea or coffee on the arms of chairs or on the top of their computers or TVs (burns or fires). You could also ask if any of them have much younger sisters, brothers or cousins, and how an untidy home can be unsafe for them.

In addition to discussing the importance of tidying up mess and rubbish, highlight that there are other things you can do to protect your workmates from dangerous working conditions.

In the presentation, we now show a photo relating to each of these. The first is clearing up spillages as soon as they happen.

Section 5
Hazardous working
conditions



1 min

It's up to you to keep your work area neat and tidy, so...



close desk and cabinet drawers when you've finished using them



screen
page 44

Next comes closing drawers and cupboard doors.

Here you could also add that while you should keep your work area neat and tidy, this doesn't mean you should ignore other people's work areas. So, you could ask your students what they would do if they were on work experience and saw a drawer or cupboard door that someone else had left open – would they just ignore it or would they do the right thing and close it?

Section 5
Hazardous working
conditions

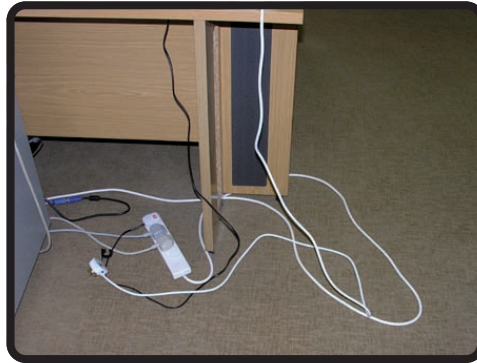


1 min

It's up to you to keep your work area neat and tidy, so...



make sure that wires and cables aren't trailing on the floor



screen
page 45

Third is tidying away trailing wires.



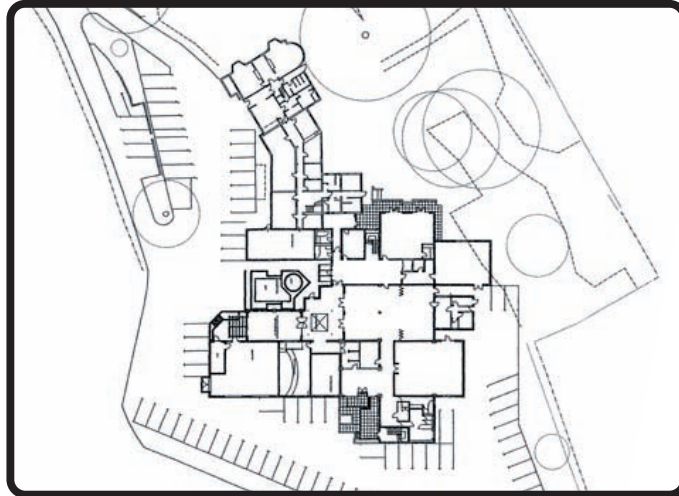
It's up to you to keep your work area neat and tidy, so...

⇒ don't pile boxes, files and papers up too high



Finally, there's making sure that things such as boxes, files and piles of paper aren't stacked up too high.

Take a tour



screen
page 47



In **Activity 11**, take your students round your school in small groups, say 5 or 6 to a group, and ask them to look out for hazards. If your students are on work placements, you could ask their manager if they could have a similar tour there.

Any tour you do could be done as part of an applied GCSE in subjects such as Business, Health and Social Care, Applied Science and ICT.

You could introduce an element of competition to this activity and put your students into teams. Each team could then work together to spot as many hazards as possible.

Before you set off, make sure everyone's got a pen, the **Take a tour** checklist (in the student workbook) and some spare paper. Double check that your students are clear on what a hazard is – you can always go back to Section 2 if your students need a refresher on the definition.

You could also suggest a few things they should be looking out for, such as:

- faulty or overloaded sockets

- blocked exit routes
- shared transport and pedestrian routes
- sources of fire
- things that could make you slip or trip up

If you take your students round your school, give your colleagues prior warning. Also, remind your students that a school is a place of work like any other, and that good (and bad) health and safety applies here too.

As well as spotting hazards, get your students to jot down what could happen if the hazard caused harm, and what they would do to remove the hazard or make it less dangerous.

You may find that students spot hazards that haven't been identified by the school as posing a risk of causing significant harm. Some students have done just this, and as a result their schools introduced measures to reduce the risk. If any of your students spot a significant hazard, make sure you immediately tell the person responsible for health and safety. And don't forget to congratulate the students who spotted them!

Section 5
Hazardous working
conditions



15 mins

Can you name two health hazards and two safety hazards in a workplace you know well?

Can you name two health hazards and two safety hazards in a workplace you don't know very well?

**screen
page 48**



For their assessments to gain the qualification, students have to identify two health hazards and two safety hazards in a workplace they're familiar with, as well as two health hazards and two safety hazards in a workplace they're less familiar with.

They also have to outline how each hazard could cause harm.

By this stage in the course, you might find that many of your students are confident enough to do this exercise unassisted. For those who can't, get them to look back at the four 'what happened next?' pictures in Section 2 (**Activity 2**), the farm yard, post room and garage scenes in Section 3 (**Activity 5**), and the workshop scene in this section (**Activity 9**). They can use these as clues, inspiration or examples. You could also get them to use examples that they identified in their school or work site visit.

Alternatively, put your students into groups or 'pair and share' teams and give them a few minutes to come up with some suggestions.

You may find it useful to remind students that health hazards include:

- manual handling
- repetitive movements
- stress
- noise
- hazardous substances

And safety hazards include:

- slips, trips and falls
- working at height
- machinery and equipment
- electricity

If your students are still unclear about the difference, get them to think about a swimming pool. Safety hazards include running at the side of the pool and 'dive bombing'. Health hazards include people urinating in the pool and too much or too little chlorine in the water.

Get your students to write down their answers (**Evidence sheets 4a** and **4b**). They can then use them as evidence if they're taking the qualification.

Section 5
Hazardous working
conditions



3 mins

**Speak to your boss, manager
or supervisor if...**

- ➡ you see anything that's dangerous,
damaged or faulty
- ➡ you see your workmates doing
something that's hazardous
- ➡ you're asked to do something you
think is dangerous

**screen
page 49**

To end this section of the course, ask your students what they think they should do if they see a hazard at work – should they just ignore it because it's 'someone else's problem'? Or, if they see their workmates doing something that's dangerous – should they interfere or just forget about it?

What you need to impress on your students is that if they see something at work that they think is dangerous, they should report it to their boss, manager or supervisor straight away. If they don't know who this person is, they should ask one of their workmates.

You also need to point out to students that they are responsible for their own health and safety. This means, for example, that they should speak to their boss, manager or supervisor if they've been asked to do something that they think is dangerous. This includes if they've been asked to do a job they haven't been trained to do or haven't been given the right or adequate protective gear for.

Also, if they're already doing a job and don't feel that it's safe for them to continue, they should stop immediately then speak to whoever's in charge.

Click on the screen or use the right arrow on your keyboard to reveal each bullet.



Word search

Section 6

Protection

Aims of this section

To introduce your students to personal protective equipment

Objectives

- To enable your students to identify why and when to use protective gear
- To give them the opportunity to try on protective gear

Overview

- Activity to introduce students to a wide range of protective gear and what each item protects you against
- Activity – students try on protective gear or meet a worker wearing some
- Discuss specific types of protective gear
- Activity to match decibel levels with everyday sounds
- Activity – a simulation of what it feels like to lose sensation in your hands
- Activity – card sort to match accidents with injuries and protective gear
- Assessment exercise – list three items of protective gear and outline which hazards each protects against and how each can stop you getting hurt

Section 6 Protection



1 min

You can get protective gear for your...

- ➡ body
- ➡ head
- ➡ eyes
- ➡ hearing
- ➡ lungs
- ➡ hands
- ➡ feet

screen
page 50

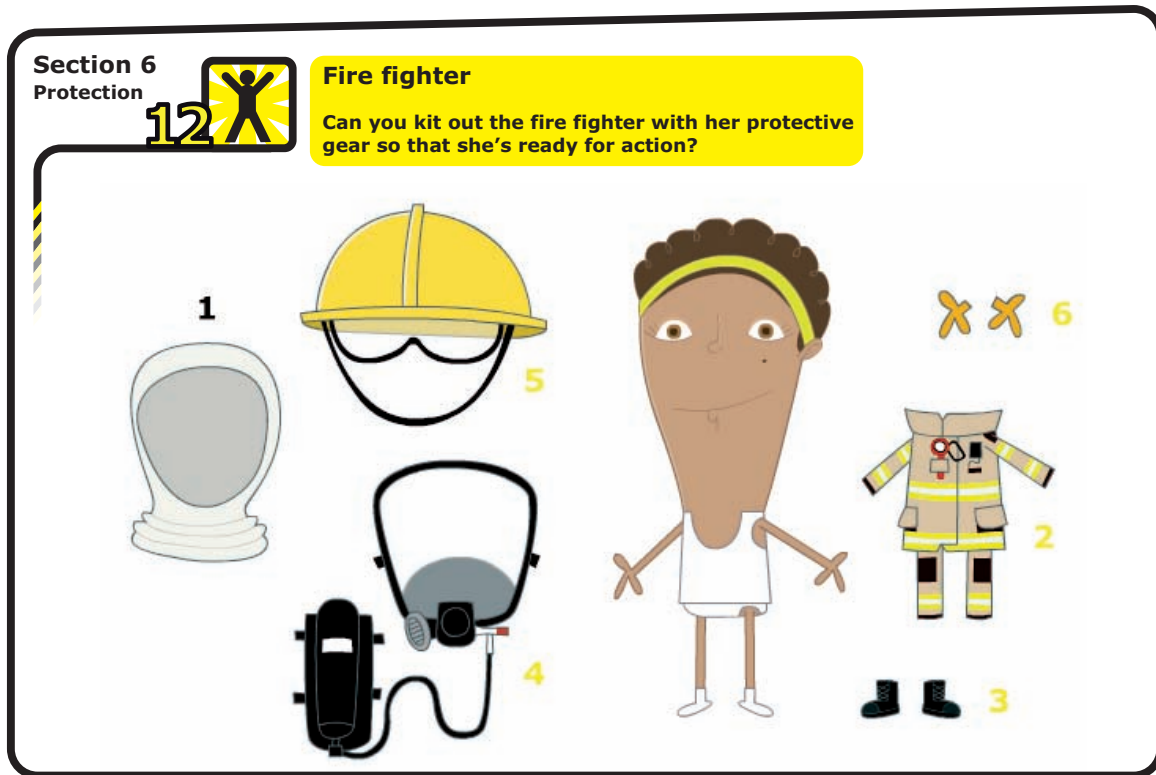
Begin this section by discussing everyday examples of dangerous things we all do that are made safer if we use something to protect ourselves, eg:

- taking something hot out of the oven using an oven glove
- lying on a beach in the hot sun and wearing sun cream and sunglasses
- driving or being driven in a car and wearing a seat belt

Protective gear is often found in sport, so get your students to think of sports where you need to wear, say, a helmet. Answers include motorcycling, ice hockey, cycling and horse riding.

We start by introducing the various areas of the body that are protected at work.

Click on the screen or use the right arrow on your keyboard to introduce each bullet.



Activity 12 is designed to give your students an idea of the range of special kit that a fire fighter would wear. We've chosen a fire fighter simply because this job demands a wide range of protective gear.

If you or your students are working on screen, you can click on the pieces of equipment sequentially. With each click a new piece is added on.

You have to click on the items of equipment in the correct order. Nothing will happen if you try to click on items out of sequence.

When the fire fighter's fully kitted out and ready for action, put your students into groups and get each group to identify the hazards that each piece of kit is designed to protect the fire fighter from, and what would happen if she wasn't wearing it.

Here are the answers...

- Hoods are fire-resistant and protect fire fighters from hot debris falling down their necks
- Jackets and trousers are waterproof and fireproof, and have reflective strips so that the fire fighter can be seen in the dark
- Boots have steel toe-caps that protect the feet from bangs and falling debris
- Face masks and air tanks allow fire fighters to breathe when they're in smoke-filled atmospheres
- Helmets protect the fire fighter from falling debris
- Gloves are waterproof and fire resistant

Try on some protective gear!



screen
page 52



Activity 13 is a great opportunity for you to bring items of protective gear into the class for your students to look at and try on for themselves. You may be surprised to find what resources you already have in school to do this, such as hard hats, footwear, hi-vis vests, safety goggles, gloves and so on. Speak to your colleagues – especially those in facilities or operations, IT and science and technology – to see what you can come up with.

The key issues you should draw out with your students are:

- what's it for?
- what does it protect you from?
- what would happen if you didn't wear it?

You could also ask someone from your school – for example, a member of the kitchen staff – to join you in class and get your students to identify what protective gear she or he is wearing, and what each item is designed to provide protection from.

If you have any links to your local fire service, you could ask a member of the fire crew to visit the class and bring a set of protective gear for your students to try on.

Most students enjoy having their photos taken during this session – so remember to have a camera with you.



Some examples of protective gear...



high-visibility jackets, vests and trousers
help others see you in the dark



screen
page 53

We now introduce the various types of protective gear, starting with 'high-visibility' clothing.

All of your students will have seen people wearing this type of clothing and be familiar with it. So, either individually or in groups, get them to think about how many different types of worker wear such clothing.

Answers include:

- construction and demolition workers
- road and rail workers
- dock workers
- people who work at an airport, especially runway staff
- people who work for the fire and rescue services
- car breakdown personnel



Some examples of protective gear...

⇒ **safety helmets** protect your head from bangs and falling objects



screen
page 54

We now give an example of protective headgear – the safety helmet.

Other types of protective gear for your head include:

- bump caps, which only protect against bumps
- chemical-resistant hoods, which have a plastic window you can see through and stop you getting splashed by acid and other dangerous chemicals
- hair nets, which stop your hair getting tangled up in machinery, as well as acting as a barrier to stop your hair and anything that's on it getting into food, other people (including hospital patients) and so on



Real life story

Sarah, aged 16, was clipping a horse as part of her apprentice training programme. When the horse reared up, she fell, hitting her head on the concrete floor. Sarah wasn't wearing a riding helmet. She died four days later.



When to wear a hard hat



Some examples of protective gear...

⇒ **safety goggles** stop dust and liquids getting in your eyes



We now give an example of protective gear for your eyes – safety goggles.



Eyewear – who wears what?

Other types include:

- safety glasses, which stop things such as bits of metal and plastic getting into your eyes and, with tinted lenses, protect them from bright and ultraviolet light
- face shields, which protect your face as well as your eyes, and are often fitted to a headband or safety helmet



Some examples of protective gear...

⇒ **ear defenders** give the best protection against noise



We now give an example of protective gear for your hearing – ear defenders.

Other types include:

- earplugs, which you fit into the outer part of the ear canal
- canal caps, which seal the ear canal at the opening

Section 6
Protection



Measuring noise

Noise is measured in decibels. For every 3 decibels, the noise level doubles. So 86 decibels is twice as loud as 83 decibels.

Most people can pick up sounds at 0 decibels. Noise gets painful at about 125 decibels.

See if you can match the noise levels to the sounds. Click on the sounds if you want to hear them.

- A** 50–60
- B** 78–85
- C** 85–95
- D** 95–100
- E** 90–115
- F** 115–120
- G** 140+

- ☐ A busy street
- ☐ A loud MP3 player
- ☐ A chainsaw
- ☐ Normal conversation
- ☐ A jet aircraft taking off 25 metres away
- ☐ A power drill
- ☐ A heavy lorry about 7 metres away

reset



5 mins

screen
page 57



Linking to hearing protection,

Activity 14 asks students to match a list of seven decibel levels with seven sounds. There's a short outline of how the decibel system works in the left-hand panel.

Students can use their workbook to do this activity, or if you're working on screen, you can drag and drop the answers into the boxes next to the names of the sounds. If you click on the names you can also hear them. (The sound effects aren't to scale!)

You could tell your students that if they've been listening to their MP3 player or have been to a gig or club and afterwards found they couldn't hear properly for a while or had a ringing or hissing in their ears, that's a sign that the sound was loud enough to damage their ears!

The correct answers for the exercise are:

B	78–85	A busy street
E	90–115	A loud MP3 player
F	115–120	A chainsaw
A	50–60	Normal conversation
G	140+	A jet aircraft taking off 25 metres away
C	85–95	A power drill
D	95–100	A heavy lorry about 7 metres away



Some examples of protective gear...

⇒ **filter masks** protect your lungs from things like wood dust



We now look at an example of protective gear for your lungs – filter masks.

The other main types are:

- disposable paper masks, typically worn by dentists and surgeons
- masks that are connected to a source of air, often used by fire fighters and paint sprayers

It's important to stress to your students that, if they're working in dusty work areas or with anything that gives off a harmful smoke, mist or vapour, they must use a face mask. It's also important to stress that, as with other types of protective gear, the type of breathing protection you should use depends on what you're working with.



Real life story

Margaret, aged 42, was working in a small bakery when she developed what she thought was a wheezy chest problem. Her work involved using flour to make bread and cakes, and she never wore any protective breathing protection. She visited her GP, who diagnosed occupational asthma. Because of her medical condition, she wasn't able to return to work.



Face masks – who wears what?



Some examples of protective gear...

⇒ **thin or latex gloves** protect your hands from chemicals and stop germs spreading



We now look at an example of protective gear for your hands – thin or latex gloves.

Other types of gloves include:

- thick or leather gloves, which protect you from hot and cold temperatures, and from knocks and bangs
- chain-mail gloves, which protect you from sharp tools and edges



Real life story

Jane, a 14-year-old, was on day release from her school, working in a hairdressing department at a local college. On her second visit to the college, after handling a product commonly used in salons, her fingers became swollen and the skin began to crack. Jane developed dermatitis, an unsightly and painful skin condition, which meant she couldn't carry on her role.



Gloves – who wears what?

Can you handle it?



screen
page 60



Activity 15 is designed to give your students an idea of what can happen if you don't protect your hands and you lose the feeling in them, as is the case with conditions such as 'vibration white finger'. As the name suggests, this is caused by working with equipment that vibrates.

To do the activity you'll need some paper clips and a few thick socks or gloves. The gloves should be thick and padded – ski gloves are ideal. For added impact, get your right-handed students to use their left hand, and your left-handed students their right hand.

If you can't get hold of socks that are thick enough, get your students to put on three or four on one hand. Choose as many students as you like to do the exercise – lots of them could do it at the same time if you have enough socks or gloves.

Put the paper clips onto a table and ask your students to try to pick one up using their non-dominant hand. If the gloves or socks they're wearing are thick enough, they should find it difficult, as they don't have the dexterity or sensation that they normally have.

You'll probably find that the activity gets your students laughing. Some might get frustrated too. If they do, point out that their frustration is just a fraction of what people who've lost the feeling in their hands experience on a daily basis.



Some examples of protective gear...



steel toe-capped boots protect your toes if you bang your foot or something falls on top of it



We now look at an example of protective gear for your feet – steel toe-capped boots. These often come with steel mid-soles too, to stop sharp objects piercing the sole.

Other types include:

- Wellington boots, often used by farmers
- boots or shoes with rubber soles, which are ideal for electricians
- boots or shoes with extra grip soles, typically used by roofers and kitchen staff
- boots or shoes that are chemical and heat resistant, which are worn by people who work with hot metals that can melt, and chemicals that can rot, the sole

You should point out to your students that some workers face many different hazards and their footwear has to have several safety features.

Builders, for example, need steel toe-caps to protect against things falling on their toes, and steel mid-soles to stop nails and other sharp objects injuring the soles of their feet. What they wear also needs to be resistant

to, for example, the corrosive effect of chemicals that are used to clean bricks.

You should also make students aware that protective footwear doesn't just protect the feet. Another safety feature that builders' footwear must have, for example, is extra grip soles, which stop you from slipping.



Real life story

Steve, aged 24, broke his leg when he slipped on water next to a tray-cleaning area in a large food factory. He was wearing normal shoes.



Footwear – who wears what?

Stop the injury!

Can you match each red 'injury' card with the right amber 'job' card and green 'protective gear' card?



screen
page 62



Activity 16 is a card-sorting exercise designed to encourage your students to make the links between:

- how someone can get a specific injury
- what job they're likely to be doing if they sustained that injury
- what protective gear would have stopped the damage being done

To help you do this activity, we've produced sets of picture cards. You'll find these in the resource folder under **Stop the injury!**. Each set of cards consists of:

- an injury – **RED CARD**
- a job associated with that injury – **AMBER CARD**
- an item of protective gear that would help prevent the injury from happening – **GREEN CARD**

Before you begin the activity, print off the number of sets you need on a colour printer. If you'll use the sets a few times, it's worth mounting each page on a sheet of card.

Then, cut up each page and place each colour of card in a separate pile before mixing them up. You can then split your class into groups and get each to match up the various sets. As in previous activities, you could add an element of competition by challenging the groups to see who can match up all the sets correctly in the quickest time.

You could extend this activity to a discussion on other factors that would help to stop an injury. For example, if someone burned their arm in a fast-food kitchen and non-slip shoes would have helped prevent the accident, you could also talk about how mopping up spilt food or liquid quickly would have prevented the accident from happening in the first place.

Section 6
Protection



5 mins

Can you name three items of protective gear, what they protect you from, and how they stop harm?

screen
page 63



For their assessments, students have to name three items of protective equipment used at work. In addition, they have to outline the hazards against which each item provides protection and how it could keep them safe.

The activity they've just completed is ideal preparation for this assessment requirement, and your students should be well equipped to do it on their own. If any do need help, you could get them to look at the cards again, or go over the various parts of this section.

Get your students to list their three items of protective gear (**Evidence sheet 5**). If they're taking the qualification, they can use the completed sheet as evidence that they've met the assessment requirement.

If any of your students have photographs of themselves wearing the protective gear they tried on earlier in this section of the course, and choose to write about one or more of these items in their assessment, they could attach the photo to the evidence sheet.

Section 7

Prevention and care

Aims of this section

To make students aware of the importance of personal hygiene, first aid and reporting accidents

Objectives

- To enable your students to identify good hygiene and poor hygiene
- To familiarise students with the contents of a first aid kit and what first aid involves
- To understand what happens when an accident is reported

Overview

- Discuss what is meant by personal hygiene
- Discuss occupations where high standards of personal hygiene are essential
- Discuss why first aid at work is important and situations where it can save lives
- Activity – what's in a first aid kit?
- Activity – what does a first aider do?
- Discuss why reporting accidents is essential

Section 7 Prevention and care



5 mins

They might look tasty,
but are they safe to eat?



screen
page 64

Before you begin this section of the course, ask your students if they know what personal hygiene is. You could prompt them by discussing things we should all do at home, such as:

- brushing your teeth at least twice a day to prevent tooth and gum disease
- washing your hands after going to the toilet, before and after touching food, and after handling a dog, cat or other pet
- keeping your hair, nails and body clean
- covering up cuts with plasters
- covering your nose when you sneeze

Now, get your students to look at the picture of sausages on a barbeque. Ask them to imagine they've gone to a friend's or neighbour's party and they've been given a plate of food to eat (it doesn't have to be sausages!). Next, ask the following questions:

- how would you know if the food you've been given has been cooked by someone who washed their hands before touching it, who prepared it in a clean kitchen, and who used clean kitchen utensils?

- how would you know if the person who prepared the food has an illness that they could pass on to you just by touching your plate, handling your food or sneezing over it?

Of course, with all meat, there's the issue of making sure that it's thoroughly cooked, otherwise you could get food poisoning. But focus on the personal hygiene of the person who prepared and cooked the food.

The point here is that you simply don't know how good the personal hygiene of this person was – possibly not until it's too late and you get sick!

Here, it's important to emphasise that:

- poor personal hygiene can have severe consequences
- you can't always see what can hurt you
- what might look clean can be poisonous and harmful

You could develop the topic of personal hygiene by asking your students if they can think of jobs where personal hygiene is particularly crucial. These include nursing (to prevent the spread of superbugs such as MRSA, for example), catering and any job that involves working with animals. You could also discuss cases where the bad hygiene of kitchen staff on cruise ships has led to widespread sickness among passengers.

What you need to stress to your students is that good personal hygiene is important because it prevents 'contamination'. And if they don't take care with personal hygiene, they themselves or other people could get sick.

Section 7
Prevention
and care



2 mins

Personal hygiene is important to stop germs and bacteria spreading, so...

- ➡ wash your hands regularly
- ➡ keep your nails, hair and body clean
- ➡ cover up cuts with plasters
- ➡ don't wear dirty work clothes at home

screen
page 65

Now, click on the next screen or use the right arrow on your keyboard to reveal each of the four bullets that tell you how to look after your personal hygiene and stop germs and bacteria spreading.



**Personal hygiene if
you work outside**



First aid at work is important because...

- ➡ when a medical emergency happens, there's someone around who can help
- ➡ it stops illnesses and injuries from getting worse



When you begin the topic of first aid at work, lead a discussion about what first aid is and why it's important. You could begin by asking if anyone in the class has had, or knows of someone else who has had, a medical emergency and been treated by a first aider, a paramedic, a nurse or a school nurse. You could then ask what would've happened if there was no-one around to deal with the emergency, or if there was no first aid kit?

You could also illustrate the importance of first aid by discussing a few scenarios where having no first aider or first aid kit could be disastrous, such as:

- cutting your hand and rapidly losing blood
- choking on food
- knocking yourself unconscious

You need to stress to your students that first aid at work is important because you need to have someone who can take charge of a situation if anyone gets injured or ill. That's why most places of work have at least one person trained in first aid, and someone else to cover for them when they're not at work.

You could add that while first aiders are trained in life-saving techniques, it's not their job to treat injuries and illnesses, only to stop them from getting worse. You could also add that one of the responsibilities a first aider has is to keep a first aid kit and make sure it's fully stocked.

Remember to click on the screen or use the right arrow on your keyboard to move from one bullet point to the next.

What's in a first aid box?



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Activity 17 asks students what they think should be in a first aid kit. Put your students into groups and ask each group to come up with a list of its contents. Then, get feedback from the groups and add up who has the most correct answers.

To add a touch more realism to this activity, you could bring a first aid kit into the classroom and open it up right at the end.

Normally, a kit includes nothing more than:

- dressings, plasters and bandages of various sizes
- sterile cleaning wipes
- disposable latex or rubber gloves

Other useful items are often included too, such as:

- safety pins
- cotton wool
- adhesive tape
- emergency blankets
- eye pads
- scissors
- tweezers

Perhaps surprisingly, one item that shouldn't be included is medicine, including painkillers.



What does a first aider do?



screen
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In **Activity 18**, get your own first aider to give your class a hands-on demonstration.

Before your first aider gives their demonstration, ask for two volunteers to take part in a competition to see who can put the best sling on someone's arm. Ask for two more volunteers who're willing to have their arms bandaged and allow a couple of minutes for the exercise.

When your volunteers have finished, get your first aider to judge who made the best sling. Then, get your first aider to show how it should be done properly.

The first aider could then show other techniques such as mouth-to-mouth resuscitation, how to put someone in the recovery position and so on. They could also give a short talk on the training they've been given, why they became a first aider and the kinds of accident and injury they've dealt with.



Reporting accidents, near-misses and ill health to the authorities is important because...

- ➡ **it helps them give advice on how to stop accidents, injuries and illness in the future**
- ➡ **it helps them decide if a company has broken the law and should go to court**

We now look briefly at the subject of reporting accidents.

Lead a discussion with your students about why reporting accidents is important. You could begin by pointing out that, whether you're in a full-time job or on work experience, you should know who to report an accident to if you have one. You could then add that all businesses should have an 'accident book'. This contains a list of the injuries that have occurred in the organisation.

You could then explain that, by law, companies have to report accidents, some illnesses and major incidents to the Health and Safety Executive (HSE) or their local authority.

Now, ask your students why they think it's important for companies to report to these organisations.

Here, there are two main answers. First, they use it so that they can give general advice on how accidents, injuries and illnesses can be avoided in the future. Second, when a specific serious accident, near-miss (where an accident is narrowly avoided) or illness is reported to them, they can then:

- visit the company and investigate what happened
- make recommendations to help the company prevent it from happening again
- decide if they should take the company to court for breaking health and safety law

Remember to click on the screen or use the right arrow on your keyboard to move from one bullet point to the next.

Section 8

Health and safety responsibilities

Aims of this section

To help students understand what causes accidents and who's responsible when they happen

Objectives

- To get students to consider why accidents happen and how they can be prevented
- To make sure students understand the health and safety responsibilities of employers and employees

Overview

- Show the film clip of 'John's story' and discuss why the accident happened
- Activity – discuss Natasha's story, who was responsible for her accident, and how it could have been prevented
- Assessment exercise – identify three things your boss should do to keep you and your workmates healthy and safe
- Activity – discuss the causes of Jake's accident and what he could have done differently
- Assessment exercise – identify three things you should do to keep yourself and others healthy and safe at work
- Activity – why did the accident happen?
- Show the film clip of the bicycle courier and discuss what happens next

Section 8 Health and safety responsibilities



15 mins

John's story

Lost Youth

The story of an injured young worker

This young worker video is © WorkSafeBC (the Workers' Compensation Board of British Columbia) and used with permission. Copies of the video and other workplace health and safety materials are available free of charge at WorkSafeBC.com

**screen
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The final section of the course focuses on the health and safety responsibilities of bosses, workers and, to a lesser extent, supervisors.

Begin by playing the clip of John's story*. Once the clip's finished, lead a discussion about what you've just seen.

*This young worker video is © WorkSafeBC (the Workers' Compensation Board of British Columbia) and used with permission. Copies of this and other workplace health and safety materials are available free of charge at WorkSafeBC.com.

Points you could draw out in this discussion include:

- John was tired
- he wasn't trained in how to use the truck
- he had seen lots of his fellow workers leave the forklift in gear
- he slipped on some hydraulic fluid that hadn't been cleaned up – if it had, the accident might not have happened
- he recognises now that the accident was "so preventable, it was ridiculous"

At the end of the discussion, ask your students who they think was responsible for the accident.

Clearly, the biggest factor was John's lack of training. Making sure that workers are trained for the job they do is a boss's responsibility (whether that's an employer, manager or supervisor).

You could also discuss other factors in the accident, such as the hydraulic fluid that hadn't been cleaned up. Perhaps one of John's workmates had spilled it and hadn't bothered to clean it up, in which case his workmate would have been guilty of failing to look after John's health and safety. Alternatively, John's supervisor might have been told about it by one of the workers, and didn't do anything about it, in which case he or she would have been responsible.

Another possible factor in the accident was John's tiredness. He'd been asked to come into work at the last minute because one of his workmates had cancelled. What we don't know is if John had been working the day before, possibly on a late shift. If he had, then his manager or supervisor would have known that he'd be tired, in which case he'd have at least some responsibility for his tiredness, especially if he'd pressurised John into coming to work.



Her first job... and her last



In **Activity 19**, we look at a fictitious workplace accident. You may want to simply read out the story, ask your students to read it (there's a copy in the resource folder) or develop a role play scene based on the account.

Lead a discussion about the main causes of the accident, who was responsible, and what should have been done to prevent it.

Natasha worked as a bricklayer for a small company that built houses and garden walls. It was her first job and she'd been in it just five months.

One day, her boss asked her to join a team of workers who were building a three-storey house. Natasha reluctantly agreed, even though she knew she wasn't trained for the job.

When Natasha arrived for work that morning, her boss told her that he'd forgotten to bring a safety helmet and safety boots for her to wear. He promised her that he'd pick these up at lunchtime. When Natasha was climbing up the ladder onto the scaffold, she noticed that it didn't have any protection to stop someone from falling off (toe boards and mid-rails). She mentioned this to her boss but he told her to stop wasting time and get on with the job.

Later that morning, it started to rain and the wind picked up. Natasha was the only person working up high on the scaffold, and no-one had told her that if the weather got bad she should come down. As she was picking up a brick, it was so wet that it slipped out of her hand. When she tried to catch it she accidentally banged her head on the wall and lost her balance. Because the scaffold hadn't been put up properly, there was nothing to stop her fall. She then fell through the gap in the scaffold poles and hit the ground. She was killed instantly.

Now, draw out the various factors in the accident:

- Natasha wasn't trained for the work she'd been asked to do
- the scaffolding wasn't safe
- no-one told her she should come down the scaffolding if the weather got bad
- she wasn't wearing any protective gear

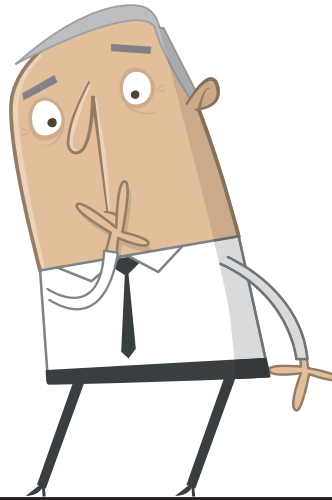
When you discuss who was responsible for the accident, focus on what Natasha's boss should have done, ie he should have made sure that:

- Natasha was trained for the job
- the scaffolding was safe to use
- Natasha knew about the dangers of working on scaffolding
- Natasha had protective gear

Section 8
Health and safety
responsibilities



What does your boss need to do to look after your health and safety?



5 mins

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For their assessments, students have to identify three things their boss should do to keep their workers healthy and safe.

While the activity your students have just completed will help them do this, most of the rest of the course is relevant too. Here are just a few examples.

In Section 4, we looked at the importance of safety signs. Implied here is the fact that it's up to the boss to make sure that there are safety signs where they are needed to let workers know, or to remind them, about hazards, things they should do, things they shouldn't do and so on.

In Section 5, students were asked what they should do about hazardous working conditions if they were the boss. The implication here is that bosses should make sure that there are no hazardous conditions that could lead to injuries or ill health for their workers.

In Section 7, one of the topics covered was

first aid. Here, it's the responsibility of the boss to make sure that there's someone who's trained to deal with medical emergencies.

Another way your students could find out about a boss's responsibilities is to ask them to do some Internet research. You could either let them see what they can come up with on their own, or direct them to www.hse.gov.uk/workers/employers.htm.

In addition to the points already listed, it's important that your students recognise the need for a boss to make sure that:

- the workplace and equipment is safe
- you're properly trained for the work you do
- you know about any hazards you could face
- you're given protective gear if you need it

In addition, it's up to the boss to make sure that where you work:

- isn't too noisy
- isn't too hot or too cold
- is free from mess and clutter

- has enough fresh air and light
- has enough space for everyone to do their job safely

There's one further area where a boss has responsibilities to his or her workers, and that's looking after their welfare. While students may not be familiar with the term 'welfare', begin a discussion by asking about what the school provides for them when they are hungry, thirsty and need to go to the toilet. These are:

- somewhere to eat at meal times
- fresh, clean drinking water
- toilets and washing facilities

You can then point out that, wherever you work, it's up to the boss to provide these for you.

If you want to give your students more information about what a boss needs to do in terms of welfare, you could add that they must provide:

- separate rest areas for pregnant women and nursing mothers
- in some workplaces, facilities for changing clothes, taking a shower, and a secure place for people to store their clothes if they have to change into special work clothes

Once you're satisfied that your students are able to list three things their boss should do to keep their workers healthy and safe, get them to note them down (**Evidence sheet 6**). If they're taking the qualification, they can use the completed sheet as evidence that they've met the assessment requirement.

Jake's mistakes



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Activity 20 is a follow up to **Activity 19**.

We look at another fictitious accident – again, you can read out the story, ask your students to read it (there's a copy in the resource folder) or develop a role play scene.

Next, lead a discussion and draw out the causes of the accident:

- the protective guard on Jake's machine was faulty and, instead of telling his boss so that it could be replaced, he removed it
- Jake and his workmate weren't wearing safety goggles

- Jake got distracted, causing him to put too much pressure on the tool, which sent sparks flying everywhere

Finally, make sure your students are clear that Jake was responsible for the accident and that it could have been prevented if:

- Jake had told his boss about the faulty machine guard and stopped working until it had been replaced
- Jake and his mate had been wearing the protective goggles they'd been given

Jake had worked as a toolmaker in an engineering company for two years. He didn't think too much about health and safety and didn't wear his safety goggles unless his supervisor was around. They made him hot and sweaty, and he could do the job much quicker not wearing them.

One day, he noticed that the protective guard on his machine had come loose. Because he had a lot to do that day, he decided to remove it, rather than tell his boss and get it replaced.

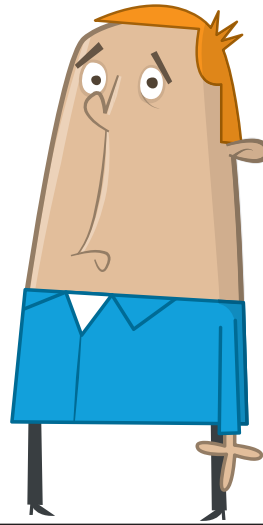
Later that day, one of Jake's workmates, Ross, popped over to ask Jake for some help. Jake lost his concentration and accidentally put too much pressure on the tool he was working on. This caused sparks and tiny bits of metal to fly everywhere. Because there was no guard to stop them, they hit Jake and Ross in the face. Neither Jake nor Ross were wearing safety goggles. Jake was only bruised and cut, but Ross lost the sight in one eye.

Section 8
Health and safety
responsibilities



5 mins

What do you need to do to look after your own health and safety and the health and safety of other people?



screen
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For their assessments, students have to identify three things that they should do to keep themselves and others healthy and safe.

Once again, the activity that students have just completed could go some way to help them complete this assessment. However, take the opportunity to look back at earlier sections in the course to give more depth to this issue.

For example, if you look back at the hazard scenes in Section 3, there are lots of hazardous activities going on, such as climbing up a ladder that's not being held by someone at the bottom and not wearing a face mask when paint-spraying a car. Choose a few of these and get your students to identify what they should and shouldn't do in such situations to make sure they and their workmates don't get hurt.

Similarly, look at Section 5, where students were told that they are responsible for their own health and safety, and that they should

speak to their boss, manager or supervisor if they think something is dangerous, damaged or faulty. They also learned in the same section that they're responsible not just for their own health and safety, but for the health and safety of their workmates too. This means that you shouldn't create hazardous working conditions for them.

You could also get your students to do some Internet research and see what they can come up with on their own. Alternatively, direct them to

www.hse.gov.uk/workers/responsibilities.htm.

It's important that your students recognise that they:

- must work safely and follow safety rules
- use any safety kit or protective gear they've been given
- don't put other people at risk by what they do or don't do
- don't play around with anything that's been put in place for their health and safety

Because keeping your own work area neat and tidy is one of the main things someone can do to protect their workmates, you should also remind your students that they should:

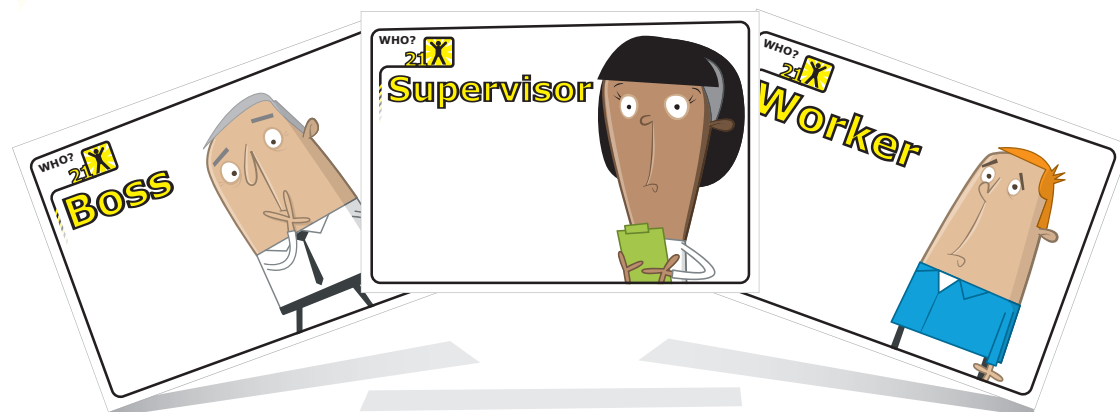
- tidy up mess and don't leave rubbish lying around
- clear up spills as soon as they happen
- close drawers and cupboard doors
- tidy away trailing wires
- don't pile boxes, papers and files up too high

Once you're satisfied that your students are able to list three things that they should do to keep themselves and others healthy and safe, get them to write them (**Evidence sheet 7**). If they're taking the qualification, they can use the completed sheet as evidence that they've met the assessment requirement.



Convincing others about the importance of health and safety

Why did the accident happen?



screen
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Activity 21 gets students thinking about who's involved in causing an accident, and the fact that responsibility is often shared. It also shows that the cause of an accident isn't always obvious.

what accident could be caused. It's a good idea to start with the more obvious ones, say 'Didn't wear protective gear'. You can then move on to those where the link is less obvious, for example 'Things weren't stored properly'.

You'll find the **Why did the accident happen?** cards in the resource folder. Print off as many as you need and, if you want, mount them on sheets of card for future use.

For their assessments, students don't have to know about a supervisor's or manager's responsibilities. Even so, it's useful for them to know what they are.

Split your class into groups and give each group a set of **who** voting cards, with **Boss**, **Supervisor** and **Worker** on them. Next, show one of the **why** cards and ask the groups to talk about who could be responsible for the accident. Get each group to hold up their cards to vote.

In short, supervisors/managers are responsible for the health and safety of the staff under them. They act on behalf of the boss, have to set a good example, and at the very least must make sure:

- everyone they manage or supervise is trained for their job and follows health and safety rules
- there aren't any hazardous working conditions in their work area

Work through as many scenarios as you need to, making sure you have a good range of **why** cards. Remind your students that sometimes the responsibility could rest with one, two or all three roles.

Once you've finished the activity, make the point that to prevent accidents happening, it's important that bosses, workers and supervisors co-operate with each other.

You could extend this activity to a discussion on



What happens next?



Nothing happened. This time.

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Just before you come to the end of the course, play the film clip of the bicycle courier weaving his way through the New York traffic.

After a couple of seconds, the clip stops. At this point, the courier looks like he's about to turn into the path of a car on his left. Before you click on the screen and continue the clip, ask your students what they think happened next. Some of them will expect the courier to be hit and knocked off his bike.

In fact, he manages to snake past the car and then cycle off, only narrowly managing to avoid getting hit for the second time.

The point you should make to your students is that most of the time things don't go wrong and accidents don't happen. But there's often a fine line between staying safe and getting injured or killed, so you have to have your wits about you.

In other words, you have to be aware of hazards if you're going to stay safe and healthy.

Congratulations!
You've
completed the
Workplace Hazard
Awareness Course!
Well done!

Your students have now completed the course, so congratulate them for working through it with you!

Don't forget that, if your students want to be awarded with their qualifications, they need to successfully complete their assessments.