

How does Health and Safety affect the way that businesses operate?

Gathering evidence for your challenge.

You will find evidence of health and safety activities in all four of the businesses in e-skills VIEW.

Each business wishes to maintain the health and safety of its employees and comply with any legal requirements that apply to its business operation and activity.

Use the Challenge 3 - links that are provided, to enter each business and find some examples of the application of health and safety procedures. Find more of your own by exploring each workplace.

Use printed maps to help you navigate around and record where you find evidence. In that way you can return to it more easily, later.

There are lots of questions to take with you into the work place, but how do you go about finding the answers? Read through and discuss these questions. What evidence would you look for to find out more?

As you explore each employer make notes for yourself that answers these and any other questions.



- What makes a safe working environment?
- What makes a healthy working environment?
- What hazards in the workplace can cause harm to employees?
- Can items in the workplace be a hazard?
- Can activity in the workplace be a hazard?
- Can other employees be a hazard?
- How can hazards be eliminated?
- How can hazards be avoided?
- How important are signs and symbols?
- Are some hazards likely or unlikely to cause harm?
- If a hazard causes harm, what might the consequences be?
- Can an employer or employee assess the risk of harm in a workplace?
- What are the employer's legal responsibilities for health and safety in the workplace?
- What are the employee's legal responsibilities for health and safety in the workplace?

e-skills VIEW unit index

The following pages make up set three of three sets of documents that support the activity of gathering work based evidence, and show students working environments across all four employers. They are intended to prepare students for the free exploration of a workplace, finding supporting evidence to help then address a more general challenge.

Each set is made up of units of work that can be downloaded, printed and used independently of any other material. The units correspond to the indexed links available through the e-skills VIEW software application.

The units in this set are:



Dover Coastguard

Gathering evidence 3: Health and safety
 Unit 2.1.1 – Dover CS: Administration offices
 Unit 2.1.2 – Dover CS: Operations area



Ford

Gathering evidence 3: Health and safety
 Unit 3.3.1 – Ford: A Building
 Unit 3.3.2 – Ford: A Building
 Unit 3.3.3 – Ford: The paint area
 Unit 3.3.4 – Ford: The medical centre



Eli Lilly

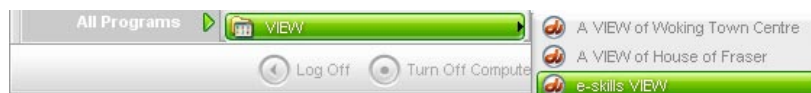
Gathering evidence 3: Health and safety
 Unit 3.2.1 – Eli Lilly: The Manor House administration area
 Unit 3.2.2 – Eli Lilly: The Laboratory Corridor 1
 Unit 3.2.3 – Eli Lilly: The Laboratory Corridor 2



Gatwick airport

Gathering evidence 3: Health and safety
 Unit 3.4.1 – Gatwick: Servisair baggage handling
 Unit 3.4.2 – Gatwick: Arrivals hall

Start e-skills VIEW
 Choose 'Gathering evidence'
 Choose 'Gathering evidence 3'



Now choose the employer:

Dover Coastguard



Use the Gathering evidence 3 links, to explore important areas of the Dover Coastguard Station.

Use the link to 'Administration corridor'. Check the map to see where in the Station you have arrived.

Like most organisations, the Station has a staff noticeboard. If you look at some of the notices you can find evidence of health and safety procedures.

You can use the SHIFT key to zoom in and the CTRL key to zoom out.

Several notices relate to different aspects of health and safety and some of the notices have been hot spotted to let you have a closer look.

Look at both notices on the right hand of the noticeboard that inform employees about what action to take in the event of fire. Almost all businesses will have procedures to deal with an incident involving fire.

1. If you were an employee at the Station, what should you do if you hear the fire alarm?
2. If you discovered a fire at the Station what should you do?
3. If a member of the public is visiting the station and doesn't know the arrangements in the event of a fire, what procedure would you put into place for their safety?

Some employees of the Maritime Coastguard Agency (MCA) will work close to or on the sea. An important part of their safety is the provision of the lifejacket. Many employers provide employees with special personal protective equipment (PPE) to meet the needs of their job. A lifejacket is a very special example of this. A pair of gloves or an overall might be something more common.

Look for the poster that reminds anyone who wears a lifejacket to get it checked, once every year.

4. For how long should the lifejacket stay inflated as a minimum as part of the test?

In the middle of the noticeboard you will find a small leaflet issued by the MCA for anyone working on ships in areas where there is loud noise, for example, an engine room. This leaflet has been designed for public use and reflects an important objective for the MCA in helping to improve safety at sea.

5. What are the three types of protection that you can wear to protect your ears against excessive noise?
6. What simple test does the leaflet suggest you use to help decide whether ear protection is needed?

The large 'Health and Safety Law' poster on the right hand side of the noticeboard is found in most workplaces. Distributed by the Government's 'Health and Safety Executive' (HSE), it is an important reminder for employers and employees about health and safety and their obligations under UK law.

Look at the list of actions that an employer must take in the middle column. Now look at the actions for the employee in the column on the right.

7. Think of an example of a way that an employee might behave that would result in them not complying with the four legal duties listed.

Some jobs appear to be more dangerous than others. If you left you will find a spiral staircase. Check on the entrance to these stairs and you will see some images of the tunnels beneath the Coastguard Station. These tunnels were used when the building was a gun emplacement in times of war.

8. What risks do you think those that dug the tunnels faced? Do you think such work is safer nowadays? What risks do you think the members of the armed services faced using the tunnels?

To the left of the noticeboard is a set of double doors that lead through to the administration area. Click on these doors and then click on either of the two photographs hanging from the wall closest to you.

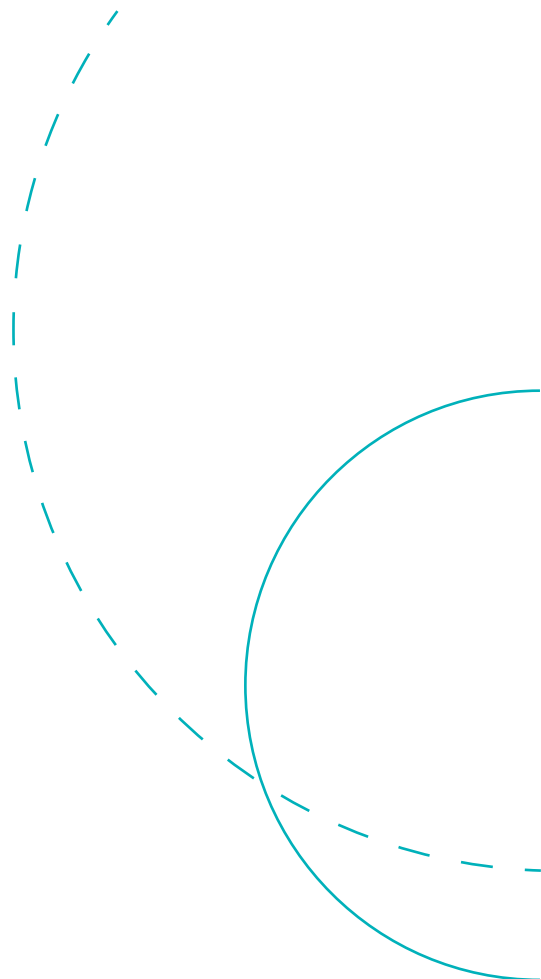
9. The images are from photographs hanging in this corridor and show circumstances at sea where health and safety may be at risk! In each of these situations what job roles are being performed and what risks do you think these employees face?

Looking down the administration corridor, click on the office door that takes you into Spike's office.

Opposite Spike is Mike's desk and as the named Health and Safety Officer for the Station, he has been looking at an official document sent to him by the MCA's Head Office. Click on the document on his desk to have a look yourself.

10. Look at the list of responsibilities for a line manager. What do you think is meant by a 'near miss' and why is it important to record near misses?

Click the 'ge 3' (Gathering evidence 3) button to the left of the map in the bottom right hand corner and you will return to the Gathering evidence 3 list of employers.



Start e-skills VIEW
 Choose 'Gathering evidence'
 Choose 'Gathering evidence 3'



Now choose the employer:

Dover Coastguard



Like many organisations, you will find an 'operations' area in which the core of the business is seen to be at work.

Use the Gathering evidence 3 link to the Operations area. Check the map to see where in the Station you have arrived.

Explore this room through the four places where you can use a rotary image. You can get a good sense of the layout of this area by visiting the four points.

1. There are three people that you can interview in the Operations area. From some of their answers, describe accurately the working hours for those on 'watch' at the station.
2. Can an employee work as many hours as they like?
3. What are the risks associated with long working hours?
4. Do you think some jobs are 'safer' to work long hours than others?
5. Find out what you can about the 'working time directive' at the Health and Safety Executive website (www.hse.gov.uk).

Each watch officer may find themselves sitting at their desk for some time. Even this work activity can present a risk to health.

- 6 How is the time spent at a desk made as comfortable as possible?

The HSE produce guidelines on workstations that address a range of factors including the screens that are used and the chairs employees sit in. Checkout the 'Display Screen Regulations' on the HSE website.

Listen to Sarah's interview and her answer to the question about the 'challenging aspects of her role'.

- 7 Can 'stress' be a hazard to an employee's health and safety?

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Now choose the employer:

Eli Lilly



Use the Gathering evidence 3 – links, to explore two important areas of the Eli Lilly site.

The Manor House administration area
 The Laboratories

Like most organisations, Eli Lilly is supported by administration offices. In here you will find a wide variety roles and responsibilities.

Use the link to the administration area. Check the map to see where you are placed on the Eli Lilly site.

Find the board where different departments are listed. Don't forget that the SHIFT key will let you zoom in on the board and the CTRL key, zoom out. By clicking on each department you can interview a key person in that area.

Locate Colin's interview as manager for Site Services. Colin highlights the importance of training to support health and safety at Eli Lilly in one of his answers. Listen to this answer carefully.

1. What are the four types of health and safety training that Colin describes?

Use the 'return' button to go back to the reception area and board.

2. If you look around you will see two fire extinguishers together on one of the walls. One contains water, but what might the other contain and why?

Now turn around and exit through the double doors to the outside of the building.

Looking around this area you will see a vehicle in use.

3. What type of vehicle is this and what is it used for?

4. What hazards do you think this vehicle presents to pedestrians moving around the site?

5. How can pedestrians be kept safe from any hazard this vehicle presents?

6. Is the driver of this vehicle at risk from any hazard? How can he be protected?

Looking around this area. Can you spot the following items that are dedicated to improving health and safety? Try to answer the questions through discussion, research and applying your own knowledge.

7. Where is a 'mirror' used to improve safety and how is it used?

8. Why have several of the buildings got scaffolding around the edge of the roof?

9. Why are handrails provided on the steps up into the administration building?

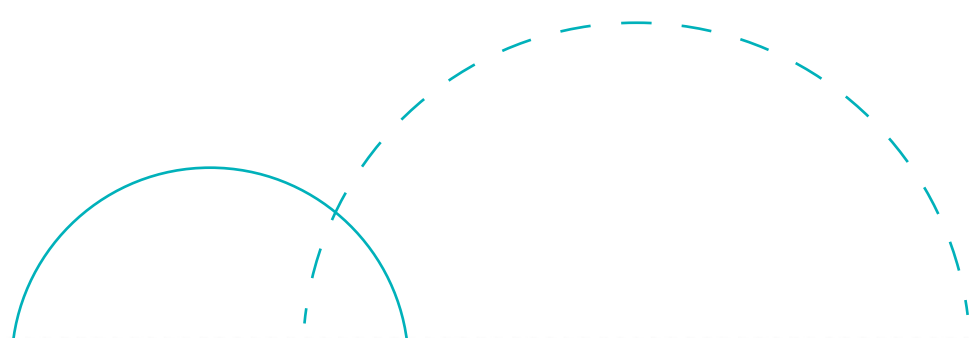
10. How are wheelchair users provided with access to the Administration building?

11. What is the device at the bottom of the left hand no-entry sign for?

12. Why do some of the roads have double red lines marked on them?

13. What is the 'H' sign for to the right of the fork lift truck?

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Now choose the employer:

Eli Lilly



Like many organisations, you will find an 'operations' area in which the core of the business is seen to be at work. In Lilly's case this is the laboratory area.

Use the link to the Laboratory corridor. Check the map carefully to see where in the corridor you have arrived.

There are 15 labs in this corridor that you can enter and look around. They provide a variety of workplaces where hundreds of people work day to day. Some have employees at work that you can interview.

Find your way into Lab 1 and click on the smaller 'NMR machine'.

1. What hazard does this machine present to those who work with it?

Move back into the corridor and then into Lab 2. Check out the sign below the sink.

2. What does 'caustic' mean?

3. What is the 'eye wash' facility for, that is above the sink?

Move east, further into the lab.

4. In an emergency how could the two scientists get out of the lab?

5. What two types of fire fighting equipment can you see in the lab?

6. How does a fume cupboard protect a scientist?

Click on the grey cupboard to the left of the fire extinguishers.

7. How does this simple device contribute to health and safety?

Facing the male scientist, click on the evidence tab and check out the first three images of the 'making a reaction' sequence of images.

8. What three types of protective clothing does the scientist use?

The scientists at Eli Lilly are not just interested in their own safety. Click on the documents on the side of the cupboard, facing north west.

9. Who or what might suffer from the wrongful disposal of chemicals into the waste water system?

10. What are 'sharps' and how might they be a hazard?

Facing north east click on the bottles on the shelves.

11. What three types of safety equipment should be used when using Ammonia?

Move west back towards the exit from this lab.

As you face the exit door, checkout the evidence tab for the 'Lab shower'?

12. Why is this device needed?

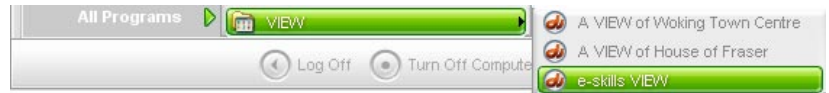
Checkout the fire notice to the right of the exit door.

13. What should you remember to do as you leave the building in the event of a fire?

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Now choose the employer:

Eli Lilly



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Use the link to the Laboratory corridor. Check the map carefully to see where in the corridor you have arrived.

There are 15 labs in this corridor that you can enter and look around. They provide a variety of workplaces where hundreds of people work day to day. Some have employees at work that you can interview.

Checkout these pieces of evidence.

1. Lab 7 - Can you find the spillage kit? Click on it to find out more.
2. How can the kit help maintain health and safety?
3. What is the last thing that the instruction leaflet tells you to do?

As you face the sink and exit door there are four examples of health and safety that you can click on.

4. Which one warns against a hazard?
5. Which one protects an employee from a hazard.
6. Which two help the employee that has been contaminated by a hazard?

Leave this lab and return to the corridor.

Locate and enter lab 9 (the small office)

In this office area you will find an evidence tab with three entries.

7. Which example shows the detection of a hazard and what is the hazard?
8. Which example shows the elimination of a hazard and what is the hazard?
9. Which example shows the recording of the use of hazardous materials and what is hazardous about the material?

Look at the door that leads into the lab.

10. What do you think each sign is for and why is it necessary?

Listen to some of Peter's interview.

11. What is GM material?
12. How can this be a hazard and how is this controlled?

Return to the corridor and move along to find Lab 11

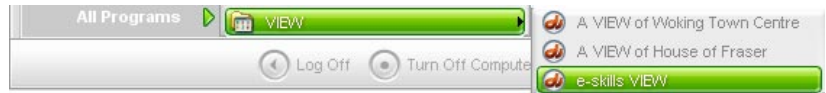
13. Why does Ruth wear a different coloured lab coat?

14. What is special about Ruth's footwear?

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Now choose the employer:

Ford



Ford is an Assembly Plant that contains many potentially hazardous materials and activities. The company takes health and safety very seriously and acts to reduce any risks to a minimum.

Use the link to the point just outside A Building to begin this activity.

1. Find these source of danger in the virtual tour of A Building and complete this list, identifying the source of danger and the risk to the health of the employee. Add any more that you find.

Source of danger	Risk to employee
Large vehicles outside A Building	Being struck by a vehicle
Fork lift trucks moving around inside	Being struck by a vehicle
Moving large and/or heavy vehicle parts	
Welding equipment in operation	
Sparks from the welding process	
Using heavy tools	
Machines moving the underbody	
Robots moving parts	
Stored parts	
Parts and/or equipment left in walkways	
Fire	
Electricity	

2 For these dangers describe how the risk to health has been minimised.

Source of danger	Ford has reduced the risk to health by...
Large vehicles outside A Building	
Fork lift trucks moving around inside	
Moving large and/or heavy vehicle parts	
Welding equipment in operation	
Sparks from the welding process	
Using heavy tools	
Machines moving the underbody	
Robots moving parts	
Stored parts	
Parts and/or equipment left in walkways	
Fire	
Electricity	

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Now choose the employer:

Ford



Visit Ford A Building and get familiar with the layout. Ask your teacher for a copy of the maps so that you can keep track of where you are and can note where you find useful evidence.

The Ford Motor Company makes the health and safety of its employees a very high priority. The assembly plant could be a dangerous working environment, but how are accidents prevented?

One way is to provide employees with personal protective equipment (PPE) that keeps the hazard away from the employee.

Can you find evidence of PPE that protects:

1. Hands
2. Feet
3. Eyes
4. Ears
5. The whole body

6. Another way is to keep the employee away from anything hazardous, but can you find three examples in A Building of this?

When you Enter the Ford 'A' Building and rotate right slightly to face south-east. Click on the 'evidence' tab and choose the 'Sub assembly work' option.

The sequence of images explains how an employee uses a machine to weld studs to a metal pressing before the pressing is presented to a robot for further work.

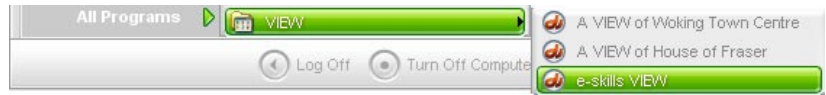
Follow the sequence carefully, reading the descriptions and looking closely at the images.

Find three ways in which the employee's health and safety is protected in this process.

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Start e-skills VIEW
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Now choose the employer:

Ford



The Ford Motor Company makes the health and safety of its employees a very high priority. The assembly process does use some materials that may be hazardous to the health of employees. Using chemicals or other hazardous substances at work can put people's health at risk. So the law requires employers to control exposure to hazardous substances to prevent ill health.

Visit the 'paint' area where the vehicles are sprayed. Look at the work area, checkout any timelines, watch the video extract and listen to the tour guide. Paint is a substance that can be harmful to an employee.

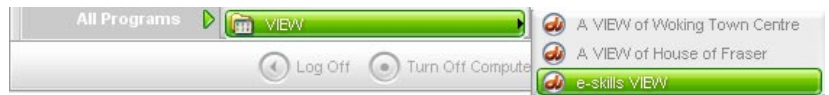
1. How does the production arrangements avoid paint contaminating other work areas?
2. How is an employee working in that area protected from paint spray?
3. The protection (ppe) for an employee in this area is beneficial, but what might be the disadvantages?
4. How does the paint spraying process avoid 'overspray' building up around the work area?
5. Find out what dangers paint presents and other methods of preventing harm to a sprayer in smaller workplaces?
6. You might find evidence of other hazardous substances around the workplace. Find out about the COSH regulations by checking out the website www.hse.gov.uk
7. Do some of your own research and then attempt to complete this table about other hazardous substances that are found in the plant.

Substance What is it ?	Risk How can it harm me?	Control measure How can I avoid harm?
Oil on the 'white' metal in A Building		
Sealer in the sealer deck before paint		
Petrol at the last stage of assembly – C Building		

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Start e-skills VIEW
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Now choose the employer:

Ford



The Ford Motor Company makes the health and safety of its employees a very high priority. The company has provided an Occupational Health Centre on site to support employees who may have had an accident or fall ill whilst at work as well as acting as a facility to support employees recovering from injury.

Visit the Medical Centre.

Go inside and find the display of leaflets.

Look at the leaflets describing 'Occupational Health' and 'Back problems'.

Make sure you understand what is meant by Occupational Health.

A local small business invites you to make a presentation about health and safety, particularly safe ways to pick up heavy boxes, which the employees have to do regularly.

The employer wants to know why she should worry about health and safety.

1. Write her a letter summarising the benefits for her as the employer and suggesting that you make a short presentation to her employees.
2. Design your short presentation to show employees how best to pick up the heavy boxes. Your presentation should be lively and interesting and include;
 - Facts about the law
 - Facts about health
 - A real demonstration to show 'do's and don'ts'
 - A small leaflet reminding employees of the facts.

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Start e-skills VIEW
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Now choose the employer:

Gatwick airport



Check out the Servisair baggage handling.

Facing the right hand end of the Britannia area, use the evidence tab to go closer to a Britannia desk. Click on the 'hole' on the right hand side of the image, through which the passenger's luggage is taken away.

Interview John, the senior team leader.

1. What weight does John tell us is the limit for baggage, that he or his team can lift alone?
2. Looking at the images, can you spot items of PPE (personal protective equipment) ?
3. Why might Paul need to wear a high visibility jacket whilst loading baggage onto the aircraft?

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Start e-skills VIEW
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Now choose the employer:

Gatwick airport



Visit the Gatwick: Air Traffic Control.

Use the evidence tabs to locate the Fire Training Area, Fire service and the article in the Airwaves publication.

1. What is the target for time for a fire crew to attend an aircraft fire at the airport?
2. Approximately how many fire fighters are based at Gatwick airport?

Use the evidence tabs to locate the 'bird scarer'

3. How does this employee help to maintain the health and safety of those aboard aircraft? On what does he record his 'scaring activities' ?

Use the evidence tabs to locate the fog detection equipment

4. How does technology help to maintain the safety of aircraft and their passengers when the airport suffers from fog?

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