

AIMS AND OBJECTIVES

AIMS

The aim of this open learning pack is to increase your knowledge of Health and Safety by means of self-discovery, giving you a greater awareness of the potential hazards and risks common in your working environment.

The activities are aimed at developing your ability to self-study. If you research all the information yourself, you are more likely to retain your findings, thus improving your Health and Safety awareness (long term).

OBJECTIVES

On satisfactory completion of this exercise, you will be able to:

- State ranges of protective clothing and equipment.
- Identify potential hazards and preventative action to be taken.
- Describe fire and emergency procedures.
- State classifications of fire extinguishers.
- Identify employers/colleges and employees/students Health and Safety responsibilities.
- Specify layouts and purpose of safety signs.
- Select appropriate methods of treatment for specific injuries.
- Demonstrate an understanding of a Health and Safety Policy Statement.

This assignment should take you approximately 6 hours to complete, not including time spent on research and investigation.

*Written by Mike Wade
For and on behalf of Wirral Metropolitan College
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HOW TO USE THIS PACK

IMAGES

Wherever you see the following images, you are being asked to carry out a specific activity.



This image is asking you to answer the following questions.



This image is asking you to carry out some research.



This image is asking you to read the following.



1 hr

This image indicates how long the activity should take.

You should use the pack in order of its contents.

- Attempt the initial assessment to see what your present knowledge of Health and Safety is.
- Proceed reading the information pages.
- With the resources provided you should research and complete the activity pages in numerical order.
- Revisit the initial assessment to discover how much you have learnt whilst working through these activities.
- Please take the time to fill in the pack evaluation questionnaire provided at the end of this pack. This gives you the opportunity to share your thoughts on how informative, helpful and realistic this self-study pack is.
- Inform your tutor that you have finished and a tutorial will be arranged to review and discuss your progress of this Health and Safety assignment. The tutorial will be recorded in the “Tutorial Review” (located at the end of this pack) stating tutor feedback and any points of action.



USEFUL RESOURCES

You will find the following references useful when researching for information required in the activities.

- Painting and Decorating (an information manual)
- N.V.Q. Health and Safety reference pack
- The colleges Health, Safety and Welfare Policy
- Manufacturers Safety Data Sheets
- Safety sign matching exercise (floppy disc)
- Web site: www.healthandsafety.co.uk
- Web site: www.hmso.gov.uk
- Web site: www.gre.ac.uk
- Web site: www.safetysignsonline.co.uk
- Web site: www.chm.bris.ac.uk
- Web site: www.hse.gov.uk
- Web site: www.msdssearch.com



INITIAL ASSESSMENT

This part of the pack allows you to demonstrate your **existing** knowledge and understanding of Health and Safety.

Don't worry if it is minimum, as when you have completed all nine activities you will revisit the same assessment to uncover how much you have learnt. GOOD LUCK!

1. State the colours of the following safety signs;

▪ Prohibition

▪ Mandatory

2. Where is Painting and Decoratings First Aid box kept?

3. Can you name one first-aider in the College's Construction section?

4. How would you treat a person who is suffering from severe bleeding?

5. Which extinguisher would be used to put out the following fires;

▪ A fire fuelled by wood

▪ A fire fuelled by highly flammable liquids

6. What safety clothing should be worn for the following activities;

▪ Working on scaffold

▪ Dusty working environment



INITIAL ASSESSMENT CON'T...

7. In relation to legislation, what do the following initials stand for?

▪ C.O.S.H.H.

▪ H.S.W.A.

8. What is the dominating cause of the skin disease dermatitis?

9. What three factors does a fire require to burn?

1.	2.	3.
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10. Paint contains oil and solvents. With this in mind what is meant by the term “flash point”?

Thank you for completing the initial assessment. You should now commence the assignment, starting by reading the information pages, then, completing the nine activities and finish by revisiting the initial assessment at the end of the pack to uncover how much you have learnt.



INTRODUCTION TO HEALTH AND SAFETY

An accident is an unexpected or unplanned event, which results in personal injury, damage and sometimes death. **Reported accidents** are those, which result in death, major injury and absence from work.

Every day a large number of the industrial accidents that are reported involve construction workers. Of course, nobody wants to be one of those statistics. Nobody wants to spend long painful months laid up in hospital or to see a family deprived of its breadwinner. Clearly, it is in everybody's interests to try to reduce the number of accidents in their immediate working environment. This ideology is not impossible as the vast majority of accidents could be prevented.

Accidents don't just happen. They are caused. Finding out what causes them is the first step towards preventing them. Usually an accident is the last link in a chain of events, the chain consisting of a series of dangerous conditions or actions. **Accident prevention** is something that everyone can practice. It consists of being able to recognise when a condition has become dangerous and knowing what steps to take to remove that danger.

This is everybody's responsibility. It isn't just the concern of management, supervisors or a foreman. It is up to everybody, management, staff, trainees, and operatives etc who are involved in the situation.

Learning to spot a hazardous situation is not difficult; normally accidents follow a regular pattern. The same type of accident happens over and over again. Every day of the year all over the country, the same set of dangerous conditions build up and the same unsafe acts take place.

Do any of the things you normally do in your working environment and they could add up to a source of danger? Next time you are tempted to take a risk, **STOP** and think again.



HEALTH AND SAFETY AT WORK ACT 1974 (H.S.W.A.)

Since the 1920s, Government Statutes (laws) have existed which stated safe working conditions for building workers in general, and in some cases, Painters and Decorators specifically.

Because these statutes tend to take many years to pass through Parliament, and because technology in the industry is developing so rapidly, the specific regulations that have been introduced are often out of date or redundant in a short time.

This situation prompted the introduction in 1974 of the Health and Safety at Work Act (H.S.W.A.) which made it illegal for any work site to be unsafe, and for any material or equipment to have unknown hazards. The act does not identify any specific site conditions, equipment, or materials but directs the onus for site working conditions onto:

- i. The employer.
- ii. The employee.
- iii. The manufacturer.

Briefly the responsibilities for each are:

The employer must

- Provide safe work places, machines and methods of work.
- Ensure that machines and materials are used, stored and transported safely.
- Provide information, training and supervision to ensure the Health and Safety of the workers.
- Provide safe entrances and exits to work places.
- Provide good, well maintained welfare facilities.
- Publish a written Safety Policy.
- Ensure that members of the public are not exposed to risks.



HEALTH AND SAFETY AT WORK ACT 1974 (H.S.W.A.)

The employee must

- Take care of own and workmates' Health and Safety.
- Follow the Health and Safety Regulations that apply to the workplace.
- Co-operate with the employer in making areas safe.
- Not misuse anything provided to make work safe.

The manufacturer must

- Ensure that products are without risk to health.
- Ensure that products have been fully tested.
- Provide adequate information on the safe use of the products.

The Health and Safety at Work Act covers **all** people at work (except domestic workers privately employed).

H.S.W.A. is known as an Enabling Act. This means that Health and Safety Regulations including Codes of Practice may be introduced at any time to supplement or supersede existing regulations.

Present Health and Safety Regulations issued prior to the H.S.W.A. will remain in force for the time being.

The main objectives of the H.S.W.A. are:

- To secure the Health, Safety and Welfare of all persons at work.
- To protect the public from risks to Health and Safety arising from work activities.
- To control the use, handling, storage and transportation of explosives and highly flammable substances.
- To control the release of noxious or offensive substances into the atmosphere.



THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS - 1994

These regulations, often referred to as the C.O.S.H.H. regulations, are aimed at the protection of employees and others from the effects of working with substances, which are hazardous to health. C.O.S.H.H. does not apply to asbestos, lead or radioactive materials. These are covered by their own specific legislation.

C.O.S.H.H. Regulations stipulate that the employer must:

- Know what substances are being used.
- Assess the hazards to health that the substances may cause.
- Eliminate or control the hazards identified.
- Give information, instructions and training to employees.
- Monitor the effectiveness of any controls.
- Keep and regularly update records.
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The employee must:

- Make use of any control measures and equipment provided.
- Comply with any arrangements the employer has put into effect.

MANUFACTURERS RESPONSIBILITY

The Health and Safety at Work Act – 1974 places a responsibility upon manufacturers and suppliers of substances for use at work to ensure (so far as is reasonably practical) that users will be without risk to health when properly used. Suppliers are also required to provide users with information on the nature of any hazards of the materials supplied together with recommended precautions for their safe use.

This information comes in the form of Manufacturers Safety Data Sheets – M.S.D.S. Manufacturers and suppliers are obliged to provide Safety Data Sheets on request.

Some of the important items that Data Sheets contain are as follows, hazardous constituents, hazard classification, flashpoint, storage, recommended protective clothing/equipment, waste disposal, fire fighting and first aid measures.



THE HEALTH AND SAFETY POLICY

What is it?

It is the management's commitment to safety and the organisation and arrangements for identifying and dealing with risks.

Why is it necessary?

It is the first step towards self-regulation foreseen by the H.S.W.A. and is a legal requirement for a business employing five or more employees. The Health and Safety Policy must be brought to the notice of **all** employees (including office staff).

If the safety policy is to be an effective working document, it must be periodically revised to reflect conditions.

It is not merely sufficient to write a Safety Policy, the commitment to Health and Safety must be translated into effective action.

Legal Requirements

“except in such cases as maybe prescribed, it shall be the duty of every employer to prepare and as often as may be appropriate, revise a written statement of the general policy with respect to the Health and Safety at work of employees and the organisation and arrangements for the time being in force for carrying out that policy and to bring the statement and any revision of it to the notice of all employees”.

(Taken from section 2 (3) of the Health and Safety at Work Act -1974)



THE HEALTH AND SAFETY POLICY

The contents of the Policy should include

- Procedures for dealing with identified problem areas, such as:
 - Machine guarding.
 - Means of access.
 - Fire prevention.
 - Good housekeeping.
 - Inspection and maintenance of plant/equipment.
- Procedures for introducing new machinery, plant or other equipment.
- Procedures for dealing with risks, such as:
 - Noise.
 - Biological hazards.
 - Gases, toxic chemicals and highly flammable materials.
 - Waste disposal.
- Safe systems of work.
- Selection, provision and use of suitable protective clothing and equipment.
- Emergency procedures in the event of fire, accidents, explosions or escapes of dangerous substances.
- Procedures for security to prevent unauthorised access.
- Arrangements for ensuring adequate first-aid cover at all times.



FIRE PRECAUTIONS

Painters use many flammable materials and flame or spark producing apparatus. They therefore need to take precautions in the use and storage of them to prevent fire. It is essential to read manufacturers' instructions before using any material, which may constitute a fire risk.

Highly Flammable Liquids (low flash point)

Usually petroleum spirit or mixtures of cellulose solution have a flash point below 32 degrees Centigrade. Most of the following have a flash point much lower than this;

Petrol	Spirit Varnish
Cellulose Thinner	Polyurethane Thinner
Cellulose Paint	Methylated Spirit
Certain Adhesives	Chlorinated Rubber Thinner
White Spirit	

Spontaneous Combustion

Some materials used by the Painter do not require a spark or flame for ignition. An oil-soaked rag, if screwed up and left in a heap or a bin, and paint-soaked foam rubber, if placed in an enclosed bin, may smoulder and burn.

Fire-fighting

A fire requires one or a combination of the following to burn;

1. *Fuel* – combustible material that may be solid (e.g. wood), liquid (e.g. oil) or gas (e.g. petroleum vapour).
2. *Oxygen* – the flame requires oxygen to maintain it.
3. *Heat* – most solids and liquids require to be heated before they emit flammable vapours.

If any one of these factors is removed, burning will cease. The three types of fire most commonly met by the Painter are fought in different ways;

1. *Solid fuel fires* (wood, paper, cloth or rubbish) are controlled by cooling with water.
2. *Liquid or gas fires* (paint, oil or solvents) are controlled by blanketing, using foam, powder or gas, to cut off the oxygen supply.
3. *Fires in electrical equipment* (motors, wiring or switches) are controlled by blanketing, using non-conducting materials.