Estates Department

Working at Height Policy 2016

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Policy

The Laurus Trust; is committed to managing the hazards of working at height in accordance with current health and safety legislation, with particular regard to safe methods of work and the use of appropriate access equipment. The implementation of the key objectives below is delegated to the 'responsible duty holder'. (CEO or Headteacher, who may delegate this responsibility to others like the Estates Manager but cannot totally absolve the responsibility)

Objectives

The Trust has the following key objectives to secure safety for work involving working at height.

- To take all necessary steps to ensure that Trust employees, contractors and any other persons affected by its activities, are made aware of significant working at height hazards.

- To treat all working at height, once identified, in accordance with the relevant legislation, Approved Codes of Practice and current best working practices

- To carry out such identified 'working at height' tasks in a planned manner based upon prior risk assessment.

- To check that risk assessments for generic working at height tasks address issues arising from the site specific working environment.

- To ensure that all relevant contractors adopt a planned approach to working at height, particularly in emergency repair situations.

- To ensure that commissioned works and programmed maintenance contracts allow sufficient resources, so far as is reasonably practicable, in order to control any risks from working at height.

- To implement a management system for situations where a risk assessment determines that working at height has to be strictly controlled so that risks continue to be minimised, e.g. 'a permit to work.'

- To ensure that in high risk situations emergency rescue plans have been prepared e.g. 'suspension trauma' from fall arrest equipment

- To ensure the provision of appropriate training for Trust employees, with Contractors providing evidence of appropriate training during the selection process.

GUIDANCE

Background

In 2013/14 period:

Falls from height were the most common cause of fatalities, accounting for nearly three in ten (29%) fatal injuries to workers (RIDDOR)

About 1.5 million working days were lost due to slips & trips and falls of which 567 thousand working days were due to falls.

39 fatal injuries to workers involved falls from height

Regulations

The Trust will fully apply T*he Work at Height Regulations 2005* (Appendix 1). These regulations apply to all work activities and work equipment where there is a risk of a fall liable to cause personal injury.

The regulations place duties on employers, the self-employed, and any person who controls the work of others (e.g. Estate Manager) to the extent they control the work. Such persons are referred to as 'duty holders'.

Duty Holder Responsibilities

The overriding principle in these regulations is the requirement for duty holders to carry out a risk assessment to establish whether all *reasonably practicable* measures have been taken to prevent employees falling from any height. In the event of a serious accident this is the standard by which the risk assessment is expected to be judged.

Basic Principles

The Regulations set out a simple hierarchy for managing and selecting equipment for work at height.

- Avoid 'working at height' tasks if possible,
- Use work equipment or other measures to prevent falls in situations where 'working at height' tasks cannot be avoided,
- Where it is not possible to eliminate the risk of a fall, then work equipment or other measures must be assessed to minimise the distance or the consequences of a fall, should one occur.

The Work at Height Regulations 2005 requires duty holders to ensure that:

- All work at height is properly planned and organised.
- All work at height takes account of weather conditions that could endanger health and safety.
- Those undertaking tasks working at height are trained and competent.
- The location or immediate environment where work at height is undertaken is safe.
- Equipment for work at height is appropriately inspected.
- Risks from fragile surfaces are properly controlled.
- Risks from falling objects are properly controlled.

Other alternatives are not risk free and also need to be risk assessed. For example where MEWP's (Mobile Elevated Work Platforms) are assessed as providing a safer option, then relevant regulations, e.g. LOLER (Lifting Operations & Lifting Equipment Regulations) must be applied and best practice precautions such as the use of short lanyards to prevent operatives from being thrown from the platform in the event of a collision.

Ladders & Stepladders (Appendix 2 & 3)

The Trust notes that *The Work at Height Regulations 2005* neither specifically prohibit the use of ladders or stepladders nor do the Regulations promote their use. The use of such equipment should be the logical outcome of the relevant risk assessment.

In other words, the risk assessment will determine whether or not there is a safer method or better equipment that would allow the working at height task to be undertaken.

Monitoring and Review

The 'Duty Holder' will ensure that all working at height risk assessments are monitored on an annual basis.

This Policy and associated Guidance will be reviewed annually or following any significant changes in legislation, etc.

Appendix 1

Working at height

A brief guide

This is a web-friendly version of leaflet INDG401(rev2), published 01/14

Introduction

This brief guide describes what you, as an employer, need to do to protect your employees from falls from height. It will also be useful to employees and their representatives.

Following this guidance is normally enough to comply with the Work at Height Regulations 2005 (WAHR). You are free to take other action, except where the guidance says you must do something specific.

Falls from height are one of the biggest causes of workplace fatalities and major injuries. Common causes are falls from ladders and through fragile roofs. The purpose of WAHR is to prevent death and injury from a fall from height.

Work at height means work in any place where, if there were no precautions in place, a person could fall a distance liable to cause personal injury. For example you are working at height if you:

- are working on a ladder or a flat roof;
- could fall through a fragile surface;
- could fall into an opening in a floor or a hole in the ground.

Take a sensible approach when considering precautions for work at height. There may be some low-risk situations where common sense tells you no particular precautions are necessary and the law recognises this.

There is a common misconception that ladders and stepladders are banned, but this is not the case. There are many situations where a ladder is the most suitable equipment for working at height.

Before working at height you must work through these simple steps:

- avoid work at height where it is reasonably practicable to do so;
- where work at height cannot be avoided, prevent falls using either an existing place of work that is already safe or the right type of equipment;
- minimise the distance and consequences of a fall, by using the right type of equipment where the risk cannot be eliminated.

Figure 1 gives further guidance and examples for each of the above steps to help you comply with the law.

You should:

- do as much work as possible from the ground;
- ensure workers can get safely to and from where they work at height;
- ensure equipment is suitable, stable and strong enough for the job, maintained and checked regularly;

- make sure you don't overload or overreach when working at height;
- take precautions when working on or near fragile surfaces;
- provide protection from falling objects;
- consider your emergency evacuation and rescue procedures.

Who do the Regulations apply to?

If you are an employer or you control work at height (for example if you are a contractor or a factory owner), the Regulations apply to you.

How do you comply with these Regulations?

Employers and those in control of any work at height activity must make sure work is properly planned, supervised and carried out by competent people. This includes using the right type of equipment for working at height.

Low-risk, relatively straightforward tasks will require less effort when it comes to planning. Employers and those in control must first assess the risks. See the risk assessment website for more advice at www.hse.gov.uk/risk/risk-assessment.htm.

Take a sensible, pragmatic approach when considering precautions for work at height. Factors to weigh up include the height of the task; the duration and frequency; and the condition of the surface being worked on. There will also be certain low-risk situations where common sense tells you no particular precautions are necessary.

How do you decide if someone is 'competent' to work at height?

You should make sure that people with sufficient skills, knowledge and experience are employed to perform the task, or, if they are being trained, that they work under the supervision of somebody competent to do it.

In the case of low-risk, short duration tasks (short duration means tasks that take less than 30 minutes) involving ladders, competence requirements may be no more than making sure employees receive instruction on how to use the equipment safely (eg how to tie a ladder properly) and appropriate training. Training often takes place on the job, it does not always take place in a classroom.

When a more technical level of competence is required, for example drawing up a plan for assembling a complex scaffold, existing training and certification schemes drawn up by trade associations and industry is one way to help demonstrate competence.

What measures should you take to help protect people?

Always consider measures that protect everyone who is at risk (collective protection) before measures that protect only the individual (personal protection).

Collective protection is equipment that does not require the person working at height to act to be effective, for example a permanent or temporary guard rail.

Personal protection is equipment that requires the individual to act to be effective. An example is putting on a safety harness correctly and connecting it, via an energy-absorbing lanyard, to a suitable anchor point.

The step-by-step diagram in Figure 1 should be used alongside all other advice in this leaflet. You do not always need to implement every measure in Figure 1. For example when working on a fully boarded and guarded scaffold that is already up, not being altered or taken down, workers would not need to wear personal fall-arrest equipment as well.

What are the most common causes of accidents when working at height?

Roof work is high risk and falls from roofs, through fragile roofs and fragile roof lights are one of the most common causes of workplace death and serious injury. As well as in construction, these accidents can also occur on roofs of factories, warehouses and farm buildings when roof repair work or cleaning is being carried out.

The following are likely to be fragile:

- roof lights;
- liner panels on built-up sheeted roofs;
- non-reinforced fibre cement sheets;
- corroded metal sheets;
- glass (including wired glass);
- rotted chipboard;
- slates and tiles.

Fragile roof accidents are preventable and information on safe working practices can be found in the HSE information sheet *Fragile roofs: Safe working practices* (see 'Further reading').

What do you need to consider when planning work at height?

The following are all requirements in law that you need to consider when planning and undertaking work at height. You must:

- take account of weather conditions that could compromise worker safety;
- check that the place (eg a roof) where work at height is to be undertaken is safe. Each place where people will work at height needs to be checked every time, before use;
- stop materials or objects from falling or, if it is not reasonably practicable to prevent objects falling, take suitable and sufficient measures to make sure no one can be injured, eg use exclusion zones to keep people away or mesh on scaffold to stop materials such as bricks falling off;
- store materials and objects safely so they won't cause injury if they are disturbed or collapse;
- plan for emergencies and rescue, eg agree a set procedure for evacuation. Think about foreseeable situations and make sure employees know the emergency procedures. Don't just rely entirely on the emergency services for rescue in your plan.

Figure 1 Step-by-step diagram

Can you **AVOID** working at height in the first place?

If **NO,** go to **PREVENT**

Do as much work as possible from the ground.

Some practical examples include:

- using extendable tools from ground level to remove the need to climb a ladder
- installing cables at ground level
- lowering a lighting mast to ground level
- ground level assembly of edge protection

Can you **PREVENT** a fall from occurring?

If **NO,** go to **MINIMISE**

You can do this by:

- using an existing place of work that is already safe, eg a non-fragile roof with a permanent perimeter guard rail or, if not
- using work equipment to prevent people from falling

Some practical examples of collective protection when using an existing place of work:

- a concrete flat roof with existing edge protection, or guarded mezzanine floor, or plant or machinery with fixed guard rails around it

Some practical examples of collective protection using work equipment to prevent a fall:

- mobile elevating work platforms (MEWPs) such as scissor lifts
- tower scaffolds
- scaffolds

An example of personal protection using work equipment to prevent a fall:

- using a work restraint (travel restriction) system that prevents a worker getting into a fall position

Can you **MINIMISE** the distance and/or consequences of a fall?

If the risk of a person falling remains, you must take sufficient measures to minimise the distance and/or consequences of a fall.

Practical examples of collective protection using work equipment to minimise the distance and consequences of a fall:

- safety nets and soft landing systems, eg air bags, installed close to the level of the work

An example of personal protection used to minimise the distance and consequences of a fall:

- industrial rope access, eg working on a building façade
- fall-arrest system using a high anchor point

Using ladders and stepladders

For tasks of low risk and short duration, ladders and stepladders can be a sensible and practical option.

If your risk assessment determines it is correct to use a ladder, you should further **MINIMISE** the risk by making sure workers:

- use the right type of ladder for the job
- are competent (you can provide adequate training and/or supervision to help)
- use the equipment provided safely and follow a safe system of work
- are fully aware of the risks and measures to help control them

Follow HSE guidance on safe use of ladders and stepladders at **www.hse.gov.uk/work-at-height/index.htm**

For each step, consider what is reasonably practicable and use 'collective protection' before 'personal protection'

How do you select the right equipment to use for a job?

When selecting equipment for work at height, employers must:

- provide the most suitable equipment appropriate for the work (use Figure 1 to help you decide);
- take account of factors such as:
  - the working conditions (eg weather);
  - the nature, frequency and duration of the work;
  - the risks to the safety of everyone where the work equipment will be used.

If you are still unsure which type of equipment to use, once you have considered the risks, the **W**ork at height **A**ccess equipment **I**nformation **T**oolkit (or **WAIT**) is a free online resource that offers possible solutions. It provides details of common types of equipment used for work at height. HSE has also produced a guide on the safe use of ladders and stepladders (see 'Further reading').

How do you make sure the equipment itself is in good condition?

Work equipment, for example scaffolding, needs to be assembled or installed according to the manufacturer's instructions and in keeping with industry guidelines.

Where the safety of the work equipment depends on how it has been installed or assembled, an employer should ensure it is not used until it has been inspected in that position by a competent person.

A competent person is someone who has the necessary skills, experience and knowledge to manage health and safety. Guidance on appointing a competent person can be found at www.hse.gov.uk/competence.

Any equipment exposed to conditions that may cause it to deteriorate, and result in a dangerous situation, should be inspected at suitable intervals appropriate to the environment and use. Do an inspection every time something happens that may affect the safety or stability of the equipment, eg adverse weather, accidental damage.

You are required to keep a record of any inspection for types of work equipment including: guard rails, toe-boards, barriers or similar collective means of protection; working platforms (any platform used as a place of work or as a means of getting to and from work, eg a gangway) that are fixed (eg a scaffold around a building) or mobile (eg a mobile elevated working platform (MEWP) or scaffold tower); or a ladder.

Any working platform used for construction work and from which a person could fall more than 2 metres must be inspected:

- after assembly in any position;
- after any event liable to have affected its stability;
- at intervals not exceeding seven days.

Where it is a mobile platform, a new inspection and report is not required every time it is moved to a new location on the same site.

You must also ensure that before you use any equipment, such as a MEWP, which has come from another business or rental company, it is accompanied by an indication (clear to everyone involved) when the last thorough examination has been carried out.

What must employees do?

Employees have general legal duties to take reasonable care of themselves and others who may be affected by their actions, and to co-operate with their employer to enable their health and safety duties and requirements to be complied with.

For an employee, or those working under someone else's control, the law says they must:

- report any safety hazard they identify to their employer;
- use the equipment and safety devices supplied or given to them properly, in accordance with any training and instructions (unless they think that would be unsafe, in which case they should seek further instructions before continuing).

You must consult your employees (either directly or via safety representatives), in good time, on health and safety matters. Issues you must consult employees on include:

- risks arising from their work;
- proposals to manage and/or control these risks;
- the best ways of providing information and training.

Employers can ask employees and their representatives what they think the hazards are, as they may notice things that are not obvious and may have some good, practical ideas on how to control the risks. See the worker involvement website for more information on consulting employees (www.hse.gov.uk/involvement).

What must architects and building designers do?

When planning new-build or refurbishment projects, architects and designers have duties under The Construction (Design and Management) Regulations, to consider the need for work to be carried out at height over the lifespan of a building, eg to clean, maintain and repair it. They should design out the need to work at height if possible.

Further reading

HSE's website provides more advice, guidance and answers to frequently asked questions. Industries and trade associations have produced guidance about working at height for specific jobs or for using certain types of access equipment.

Find out more at www.hse.gov.uk/work-at-height/index.htm

You can access the Work at height Access equipment Information Toolkit (WAIT) at www.hse.gov.uk/work-at-height/wait/index.htm

Using ladders and stepladders safely: A brief guide Leaflet INDG455 HSE Books 2014 www.hse.gov.uk/pubns/indg455.htm

Health and safety in roof work HSG33 (Fourth edition) HSE Books 2012 ISBN 978 0 7176 6527 3 www.hse.gov.uk/pubns/books/hsg33.htm

Further guidance on risk assessment can be found at www.hse.gov.uk/risk

Further information about CDM and design requirements can be found at www.hse.gov.uk/construction/cdm.htm

The Work at Height Regulations 2005 SI 2005/735 The Stationery Office 2005 www.legislation.gov.uk

Fragile roofs: Safe working practices General Information Sheet GEIS5 HSE Books 2012 www.hse.gov.uk/pubns/geis5.htm

Further information

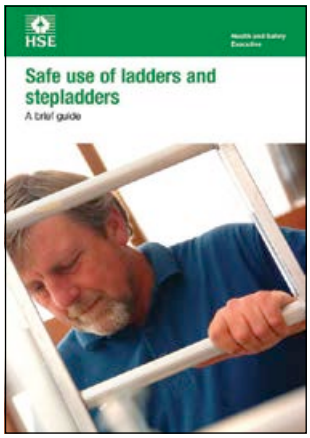
For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This leaflet is available at www.hse.gov.uk/pubns/indg401.htm.

Safe use of ladders and stepladders

A brief guide



This is a web-friendly version of leaflet INDG455, published 01/14

Ladders and stepladders are not banned under health and safety law.

In fact they can be a sensible and practical option for low-risk, short-duration tasks.

Introduction

This guidance is for employers on the simple, sensible precautions they should take to keep people safe when using ladders and stepladders in the workplace. This will also be useful for employees and their representatives.

Following this guidance is normally enough to comply with the Work at Height Regulations 2005 (WAHR). You are free to take other action, except where the guidance says you must do something specific.

Ladders and stepladders are not banned under health and safety law.

In fact they can be a sensible and practical option for low-risk, short-duration tasks, although they may not automatically be your first choice. Make sure you use the right type of ladder and you know how to use it safely.

The law calls for a sensible, proportionate approach to managing risk, and further guidance on what you should do before deciding if a ladder is the right type of equipment for a particular task is provided in *Working at height: A brief guide* (see 'Further reading').

References to ladders in this leaflet, unless otherwise indicated, refer to leaning ladders (sometimes known as extension ladders) and stepladders and the guidance applies similarly to both. More specific requirements that only apply to a leaning ladder or a stepladder are covered in detail under the relevant headings.

When is a ladder the most suitable equipment?

The law says that ladders can be used for work at height when a risk assessment has shown that using equipment offering a higher level of fall protection is not justified because of the low risk and short duration of use; or there are existing workplace features which cannot be altered.

Short duration is not the deciding factor in establishing whether use of a ladder is acceptable or not – you should have first considered the risk. As a guide, if your task would require staying up a leaning ladder or stepladder for more than 30 minutes at a time, it is recommended that you consider alternative equipment.

You should only use ladders in situations where they can be used safely, eg where the ladder will be level and stable, and where it is reasonably practicable to do so, the ladder can be secured.

Who can use a ladder at work?

To use a ladder you need to be competent, ie have had instruction and understand how to use the equipment safely.

Appropriate training can help. If you are being trained, you should work under the supervision of somebody who can perform the task competently. Training can often take place on the job.

Check your ladder before you use it

Before starting a task, you should always carry out a 'pre-use' check to spot any obvious visual defects to make sure the ladder is safe to use.

A pre-use check should be carried out:

- by the user;
- at the beginning of the working day;
- after something has changed, eg a ladder has been dropped or moved from a dirty area to a clean area (check the state or condition of the feet).

Check the stiles – make sure they are not bent or damaged, as the ladder could buckle or collapse.

Check the feet – if they are missing, worn or damaged the ladder could slip. Also check ladder feet when moving from soft/dirty ground (eg dug soil, loose sand/ stone, a dirty workshop) to a smooth, solid surface (eg paving slabs), to make sure the foot material and not the dirt (eg soil, chippings or embedded stones) is making contact with the ground.

Check the rungs – if they are bent, worn, missing or loose the ladder could fail.

Check any locking mechanisms – if they are bent or the fixings are worn or damaged the ladder could collapse. Ensure any locking bars are engaged.

Check the stepladder platform – if it is split or buckled the ladder could become unstable or collapse.

Check the steps or treads on stepladders – if they are contaminated they could be slippery; if the fixings are loose on steps, they could collapse.

If you spot any of the above defects, don't use the ladder and notify your employer.

Use your ladder safely

Once you have done your 'pre-use' check, there are simple precautions that can minimise the risk of a fall.

Leaning ladders

When using a leaning ladder to carry out a task:

- only carry light materials and tools – read the manufacturers' labels on the ladder and assess the risks;
- don't overreach – make sure your belt buckle (navel) stays within the stiles;
- make sure it is long enough or high enough for the task;

- don't overload it – consider workers' weight and the equipment or materials they are carrying before working at height. Check the pictogram or label on the ladder for information;
- make sure the ladder angle is at 75° – you should use the 1 in 4 rule (ie 1 unit out for every 4 units up) – see Figure 1;
- always grip the ladder and face the ladder rungs while climbing or descending – don't slide down the stiles;
- don't try to move or extend ladders while standing on the rungs;
- don't work off the top three rungs, and try to make sure the ladder extends at least 1 m (three rungs) above where you are working;
- don't stand ladders on moveable objects, such as pallets, bricks, lift trucks, tower scaffolds, excavator buckets, vans, or mobile elevating work platforms;
- avoid holding items when climbing (consider using a tool belt);
- don't work within 6 m horizontally of any overhead power line, unless it has been made dead or it is protected with insulation. Use a non-conductive ladder (eg fibreglass or timber) for any electrical work;
- maintain three points of contact when climbing (this means a hand and two feet) and wherever possible at the work position – see Figures 2 and 3;
- where you cannot maintain a handhold, other than for a brief period (eg to hold a nail while starting to knock it in, starting a screw etc), you will need to take other measures to prevent a fall or reduce the consequences if one happened;
- for a leaning ladder, you should secure it (eg by tying the ladder to prevent it from slipping either outwards or sideways) and have a strong upper resting point, ie do not rest a ladder against weak upper surfaces (eg glazing or plastic gutters – see Figure 4);
- you could also use an effective stability device.

✔ **Figure 1** Ladder showing the correct 1 in 4 angle (means of securing omitted for clarity)

✔ **Figure 2** Correct – user maintaining three points of contact (means of securing omitted for clarity)

✘ **Figure 3** Incorrect – overreaching and not maintaining three points of contact (means of securing omitted for clarity)

✔ **Figure 4** Correct – use of a stand-off device to ensure a strong resting point. Do not rest a ladder against weak upper surfaces such as glazing or plastic gutters. Follow the manufacturer's instructions

✔ **Figure 5** Example where two hands need to be free for a brief period for light work. Keep two feet on the same step and the body (knees or chest) supported by the stepladder to maintain three points of contact. Make sure a safe handhold is available

Stepladders

When using a stepladder to carry out a task:

- check all four stepladder feet are in contact with the ground and the steps are level;
- only carry light materials and tools;
- don't overreach;
- don't stand and work on the top three steps (including a step forming the very top of the stepladder) unless there is a suitable handhold;
- ensure any locking devices are engaged;
- try to position the stepladder to face the work activity and not side on. However, there are occasions when a risk assessment may show it is safer to work side on, eg in a retail stock room when you can't engage the stepladder locks to work face on because of space restraints in narrow aisles, but you can fully lock it to work side on;
- try to avoid work that imposes a side loading, such as side-on drilling through solid materials (eg bricks or concrete);
- where side-on loadings cannot be avoided, you should prevent the steps from tipping over, eg by tying the steps. Otherwise, use a more suitable type of access equipment;
- maintain three points of contact at the working position. This means two feet and one hand, or when both hands need to be free for a brief period, two feet and the body supported by the stepladder (see Figure 5 and associated text).

When deciding if it is safe to carry out a particular task on a stepladder where you cannot maintain a handhold (eg to put a box on a shelf, hang wallpaper, install a smoke detector on a ceiling), this needs to be justified, taking into account:

- the height of the task;
- whether a handhold is still available to steady yourself before and after the task;
- whether it is light work;
- whether it avoids side loading;
- whether it avoids overreaching;
- whether the stepladder can be tied (eg when side-on working).

What about the place of work where the ladder will be used?

As a guide, only use a ladder:

- on firm ground;
- on level ground – refer to the manufacturer's pictograms on the side of the ladder. Use proprietary levelling devices, not ad-hoc packing such as bricks, blocks, timbers etc;
- on clean, solid surfaces (paving slabs, floors etc). These need to be clean (no oil, moss or leaf litter) and free of loose material (sand, packaging materials etc) so the feet can grip. Shiny floor surfaces can be slippery even without contamination;
- where they will not be struck by vehicles (protect the area using suitable barriers or cones);

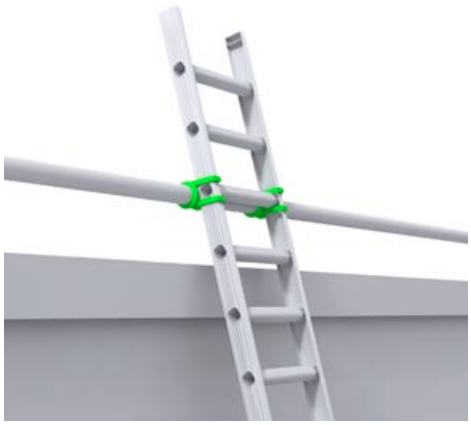


Figure 6 Correct – ladder tied at top stiles (correct for working on, but not for gaining access to a working platform/roof etc)

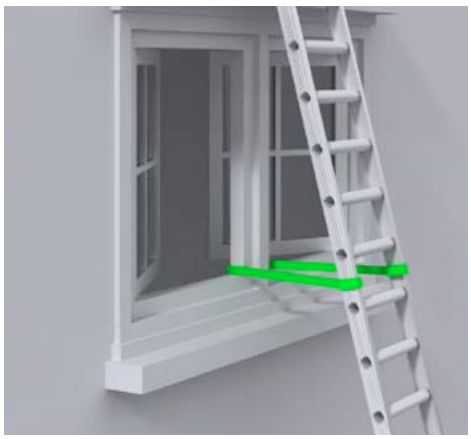


Figure 7 Correct – tying part way down

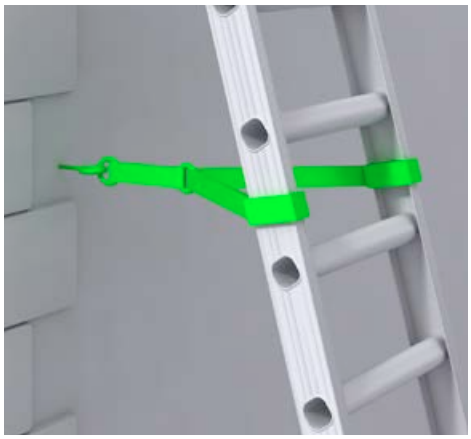


Figure 8 Correct – tying near the base

- where they will not be pushed over by other hazards such as doors or windows, ie secure the doors (not fire exits) and windows where possible;
- where the general public are prevented from using it, walking underneath it or being at risk because they are too near (use barriers, cones or, as a last resort, a person standing guard at the base);
- where it has been secured.

What are the options for securing ladders?

The options are as follows:

- tie the ladder to a suitable point, making sure both stiles are tied, see Figures 6, 7 and 8;
- where this is not practical, secure with an effective ladder stability device;
- if this is not possible, then securely wedge the ladder, eg wedge the stiles against a wall;
- if you can't achieve any of these options, foot the ladder. Footing is the last resort**.** Avoid it, where 'reasonably practicable', by using other access equipment.

What about ladders used for access?

In general:

- ladders used to access another level should be tied (see Figure 9) and extend at least 1 m above the landing point to provide a secure handhold. At ladder access points, a self-closing gate is recommended;
- stepladders should not be used to access another level, unless they have been specifically designed for this.

Figure 9 Correct – access ladders should be tied and extend at least 1 m above the landing point to provide a secure handhold

What about the condition of the equipment?

Employers need to make sure that any ladder or stepladder is both suitable for the work task and in a safe condition before use. As a guide, only use ladders or stepladders that:

- have no visible defects. They should have a pre-use check each working day;
- have an up-to-date record of the detailed visual inspections carried out regularly by a competent person. These should be done in accordance with the manufacturer's instructions. Ladders that are part of a scaffold system still have to be inspected every seven days as part of the scaffold inspection requirements;
- are suitable for the intended use, ie are strong and robust enough for the job. HSE recommends British Standard (BS) Class 1 'Industrial' or BS EN 131 ladders for use at work (see 'Further reading');
- have been maintained and stored in accordance with the manufacturer's instructions.

A detailed visual inspection is similar to 'pre-use' checks', in that it is used to spot defects. It can be done in-house by a competent person (pre-use checks should be part of a user's training) and detailed visual inspections should be recorded.

When doing an inspection, look for:

- twisted, bent or dented stiles;
- cracked, worn, bent or loose rungs;
- missing or damaged tie rods;
- cracked or damaged welded joints, loose rivets or damaged stays.

Make pre-use checks and inspect ladder stability devices and other accessories in accordance with the manufacturer's instructions.

Further reading

Working at height safely: A brief guide Leaflet INDG401(rev2) HSE Books 2014 www.hse.gov.uk/pubns/indg401.htm

Work at height web pages on the HSE website: www.hse.gov.uk/work-at-height/index.htm

You can access the Work at height Access equipment Information Toolkit (WAIT) at www.hse.gov.uk/work-at-height/wait/index

British Standards provide more information on current product standards (see 'Further information'), eg:

BS 1129 *Specification for portable timber ladders, steps, trestles and lightweight stagings* British Standards Institution

BS 2037 *Specification for portable aluminium ladders, steps, trestles and lightweight stagings* British Standards Institution

BS EN 131 *Ladders (Specification for terms, types, functional sizes; Specification for requirements, testing, marking; User instructions; Single or multiple hinge-joint ladders)* British Standards Institution

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

British Standards can be obtained in PDF or hard copy formats from BSI: http://shop.bsigroup.com or by contacting BSI Customer Services for hard copies only Tel: 0845 086 9001 email: cservices@bsigroup.com.

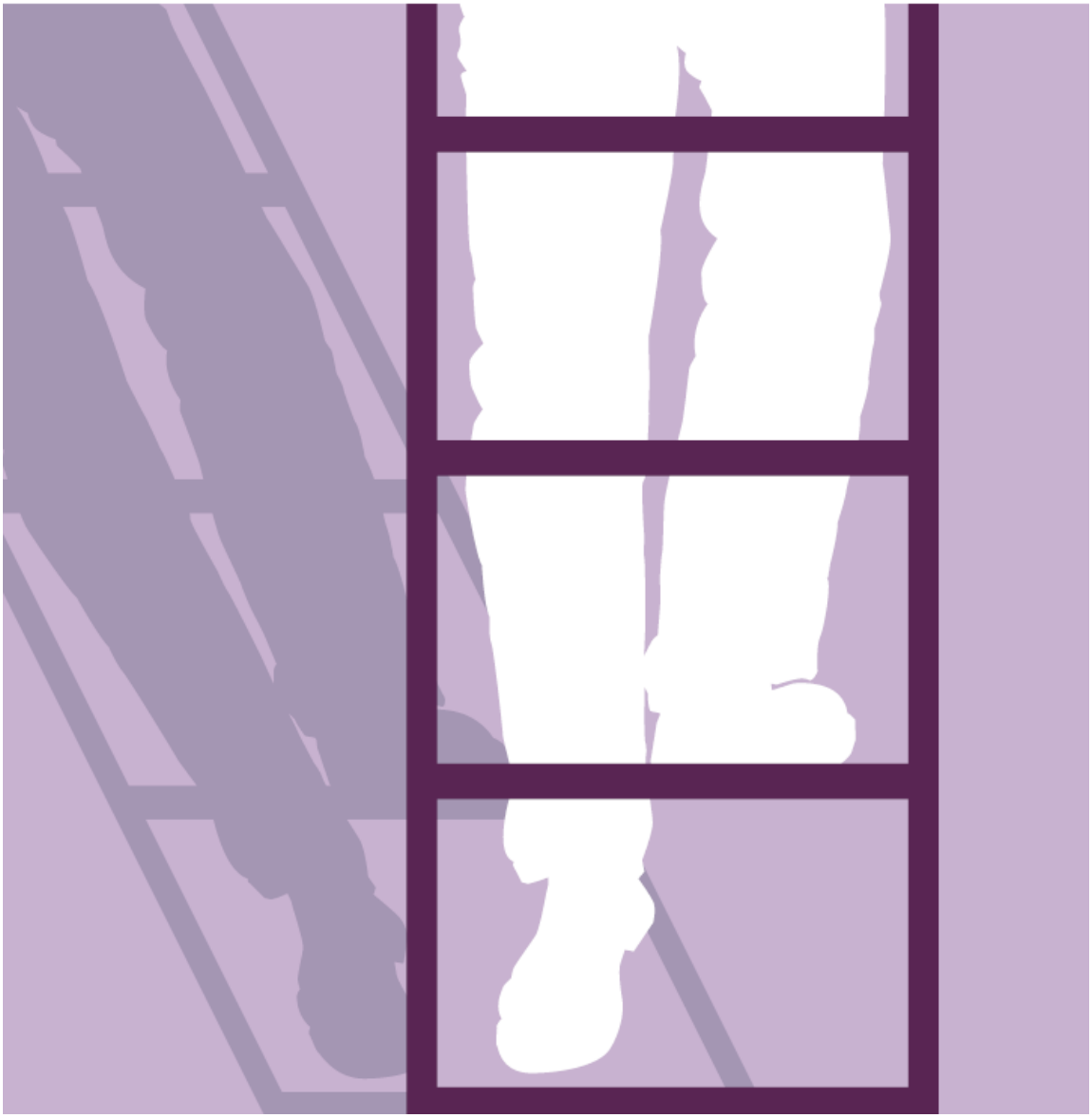
This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This leaflet is available at www.hse.gov.uk/pubns/indg455.htm.

HSE

Health and Safety Executive

A toolbox talk on leaning ladder and stepladder safety



Notes for employers

This talk can be used to help improve the competence of workers using leaning ladders and stepladders across all industry sectors. The talk is divided into three sections, which can be given individually or together:

- hazards and pre-use checks;
- positioning;
- safe use.

Each section lasts approximately 10-15 minutes.

Ladders are involved in more falls from height than any other kind of work equipment. Usually the accident could have been avoided and training is a key step in encouraging people to use them safely. This talk can help but additional training may be required to give a full level of competence. For existing users the talk can be used as a refresher.

We have made it clear where the talk applies to leaning ladders, stepladders or both and there are additional notes for speakers.

Before you start

Training is only one part of managing the risks from working at height. All employers should have procedures in place to ensure that ladders are only used where other safer means of access cannot reasonably be used.

The following points must be considered before site works begin:

- identify all types of work where work at height is necessary;
- assess whether the work can be done without the need to work at height.

Where the work has to be done at height:

- identify if other safer means of access can be used such as:
  - tower scaffolds; or
  - powered access such as a cherry picker or a scissor lift;
- identify the remaining work for which ladders can still be used. Restrict this to short-duration, light-duty work based on a suitable assessment of the risks;
- for more guidance consult any method statements or risk assessments.

You should also have procedures in place for:

- choosing the right ladders for the job (length and strength);
- identifying each ladder so that you can keep track of it;
- routine, recorded inspections of ladders and a procedure for withdrawing unsafe ladders from use;
- secure storage away from sources of accidental damage;
- providing adequate supervision by competent people.

Using the talk

Not all of the talk may be relevant to your site - leave out the parts that are not. There may also be some risks that apply to your site that have not been included. Before using the talk, check its contents against your own risk assessment of ladder use on your site and add any information that you think is necessary.

Further information is available in HSE leaflet *Safe use of ladders and stepladders: An employers' guide*. You may also want to give people a copy of the HSE pocket card *Top tips for ladder and stepladder safety* to take away after the talk. See back cover for details.

Identify the people who use ladders and should listen to the talk and put what they hear into practice. Make sure they are present when it is delivered. Keep a record of those who have received the talk and make other arrangements for anybody who could not attend.

The person who delivers the talk should:

- be a good speaker;
- be committed to what they say;
- be able to demonstrate safe use of the ladders and accessories used; and
- know enough about the safe use of ladders to be able to answer any questions that may be asked.

While the talk can be read as written, it is important that whoever delivers it is comfortable with the language used. Where they are not, it should be modified to suit their own style of delivery. It can be delivered on site but try to make sure that there is minimal disruption.

Introducing the toolbox talk

Why talk about ladders?

Every year an average of 14 people die and a further 1200 are seriously injured at work as a result of falling from a leaning ladder or stepladder. Here are examples of such accidents.

- A joiner working from a leaning ladder to replace a gutter applied force to the guttering to free it from a bracket, lost his balance and fell 4 m. He broke a bone in his back resulting in 10 days in hospital and 6 months off work. He can now only do light work that does not involve heavy lifting.
- During refurbishment of a warehouse a contractor placed a wooden leaning ladder between two stands of pallet racking. The ladder was leaning at an angle of 45° with the top against one rack and the bottom against another, to stop it from slipping. The ladder broke under the user's weight, causing him to fall to the ground and fracture his skull.
- A self-employed electrician was working from the second from top rung of a 2 m-high industrial aluminium stepladder. He was over-reaching while operating a power drill and lost his balance, falling onto the concrete floor. He fractured his skull and right heel, and was off work for three months.

By listening to this talk and putting what you hear into practice you can help make sure these sort of accidents do not happen to you.

The talk is made up of three sections, each lasting 10-15 minutes:

- hazards and pre-use checks;
- positioning;
- safe use.

When the advice mentions 'ladders' in the heading, the section refers to both leaning ladders and stepladders.

Section 1 Hazards and pre-use checks

Hazards

1 Has anyone here fallen from a stepladder or a leaning ladder, witnessed a colleague have such a fall or been made aware of such an incident?

***Notes for speaker** Discuss the circumstances of the accident including what caused the fall and how it could have been avoided.*

2 What are the reasons people fall from leaning ladders and stepladders?

***Notes for speaker** Answers should include:*

- *the leaning ladder slipping either at the top or bottom;*
- *the leaning ladder flipping over or coming away at the top;*
- *overstretching;*
- *a fault with the ladder;*
- *slipping or loosing your footing;*
- *stepladder wobbles due to missing feet or not being correctly open;*
- *stepladder being used side-on to the work task.*

*Some of these will be a result of **bad planning** or use of the **wrong piece of equipment** for the job.*

3 You do not need to fall from a great height to be badly injured. More people get injuries such as broken arms or legs falling less than 2 m from a ladder than falling from above this height. For example, a person was killed when they lost their footing on the second rung of a ladder and fell backwards, hitting their head on the floor.

4 Are there any questions so far?

Pre-use checks

5 All the company's ladders have been individually identified. Don't use any other ladder, including any brought from home or belonging to other companies.

***Notes for speaker** Explain how ladders are individually identified.*

6 Every time you use a ladder check it beforehand to make sure it is safe to use. Frequently used ladders only need one such check a day - except for checking the feet when moving from soft/dirty ground to a clean area. Do you know what to look for?

***Notes for speaker** Answers should include:*

- *missing, damaged or worn anti-slip feet on metal and fibreglass ladders (these are essential for good grip);*
- *items stuck in the feet such as swarf, stones grease or dirt, preventing the feet from making direct contact with the ground;*
- *mud, grease or oil either on the rungs or the stiles (the sides);*
- *cracks in the rungs or stiles of the ladder;*
- *missing, broken or weakened rungs;*
- *missing or damaged tie rods;*
- *check metal ladders for cracked or damaged welds and missing or loose screws or rivets.*

7 If you see any of these do not use the ladder or try and repair it yourself. Remove it from use and report it.

***Notes for speaker** Explain how to remove the ladder and who to report the problem to.*

8 It is important to have clear on-site arrangements for storing ladders safely. Discuss and agree what your storage arrangements are - they should meet the manufacturer's recommendations.

9 Are there any questions?

***Notes for speaker** Summarise the main points that have been learnt by the team and complete the attendance records.*

Section 2 Positioning

Positioning all types of ladder

1 Do not position a ladder:

- where it can be knocked by a door or window - unless the door or window is secured. If this is impractical, have a person standing guard at a doorway, or inform workers not to open windows until they are told to do so;
- where it may get struck by a passing vehicle;
- within 6 m of an overhead power line (unless the lines have been temporarily disconnected or insulated).

2 Check each foot is on a clean, level, firm footing and look out for oil, grease or loose material, including plastic packaging and sheeting.

3 Make sure the ladder is at the correct height, never use boxes or bricks etc to gain extra height.

Positioning leaning ladders

4 Avoid placing ladders on side or back slopes, particularly if the surface is wet. Ladders should not be used on a suitable surface where the side slope is greater than 16° or the back slope is greater than 6° (see Figure 1), unless the manufacturer states otherwise. The rungs should always look horizontal and appropriate levelling devices may be used.

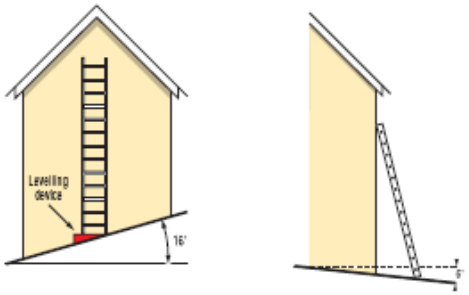


Figure 1 *Ladder showing maximum angles at 16° on a side slope and 6° on a back slope*

5 To erect a ladder, place its foot against a fixed object such as a wall and raise the other end by progressing hand over hand, from rung to rung, until it is upright.

6 Make sure the ladder is erected the right way up. If it is wooden ensure the tie rods are underneath the rungs, if it is aluminium check the rung profile is the right way round.

7 When erected, the ladder must be at an angle of 75° as this is the best angle for stability. Use the angle indicator marked on the stiles of some ladders or the 1 in 4 rule (1 unit for every 4 units up, as shown in Figure 2).

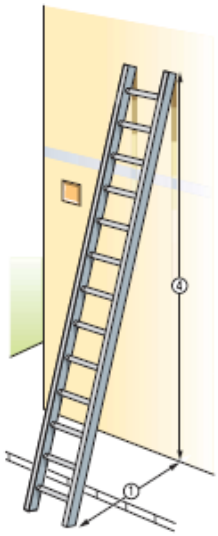


Figure 2 *Ladder showing correct 1 in 4 angle (means of securing omitted for clarity)*

8 If you cannot achieve this angle, because the ladder is too short, too long or something is in the way, then don't use it.

9 If the top of a ladder is 6 m up a wall how far out from the wall should the base be?

***Notes for speaker** Answer 1.5 m*

10 Do not place the top of a ladder against a fragile surface such as plastic guttering or glazing as this might give way and cause instability.

11 Don't stand on the top three rungs. Always try and make sure a ladder extends at least 1 m (or three rungs) above where you will be working.

12 If you are using a ladder for access, make sure it rises to at least 1 m (or three rungs) above the landing place. But make sure it does not project so far above that it could pivot around the landing point.

Positioning stepladders

13 Check all four feet are in contact with the ground.

14 Try and position stepladders with the rungs facing the work activity and not side-on, as this is less stable (see Figure 3).

Figure 3a *Correct - rungs facing work activity*

Figure 3b *Incorrect - rungs side-on to work activity*

15 Make sure the stepladder is the correct length. Don't use the top two steps of a stepladder unless it has a suitable handrail (see Figure 4b). Don't use the top three steps of swing-back or double-sided stepladders where a step forms the very top of the stepladder (see Figure 4a). This should ensure a handhold is readily available.

Figure 4a *Correct - three clear steps. Dont work any higher up this type of stepladder*

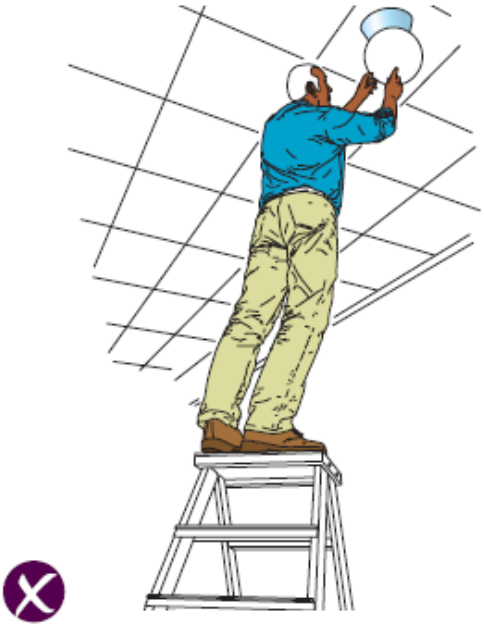


Figure 4b *Incorrect - working from the top step with no handrail*

16 When positioning a leaning ladder what should you check for?

***Notes for speaker** Answer: Check that the points raised in paragraphs 2, 4, 7, 10 and 11 of this section are mentioned - highlight any that are not.*

17 When positioning a stepladder what should you check for?

***Notes for speaker** Answer: Check that the points raised in paragraphs 13, 14 and 15 of this section are mentioned.*

18 Are there any questions?

***Notes for speaker** Summarise the main points that have been learnt by the team and complete the attendance records.*

Section 3 Safe use of all types of ladder

Safe use of all types of ladders

1 Only use ladders for light-duty, short duration work which has been approved by the responsible person.

2 You could, for example, use a ladder for wiring a security light or replacing a bulb. However, avoid strenuous work such as freeing a seized nut, installing a run of cable trays or removing a heavy object as any sudden release can cause you to lose your balance and fall.

Notes for speaker *Discuss the work that has been identified on your site that ladders can and cannot be used for and agree the tasks involved. Explain who needs to approve ladder work and make sure everybody understands and is happy with this.*

3 Do not use a ladder if you have a medical condition, or are taking medication that could affect your safety, or you are under the influence of drugs or alcohol.

4 Make sure you have the right footwear, ie clean, in good condition and without dangling laces.

5 When going up or down a ladder, take each rung one at a time and don't rush. Use both hands to grip the ladder whenever possible.

6 On nearing the bottom, watch where you place your feet. Make sure you do not miss the lower rungs as you step off.

7 When working from a ladder, try and maintain three points of contact with it at all times (eg both feet and one hand).

8 Don't carry heavy or awkward shaped objects on a ladder. Never carry loads heavier than 25 kg - any over 10 kg should be avoided if possible. This includes long lengths of lightweight material such as plastic guttering, which can be passed up by a second person instead.

Notes for speaker *Where toolbelts have been issued, explain that they are to avoid having to carry tools by hand up or down a ladder.*

9 If you have to carry an item up or down, you must keep one hand free to grip the ladder.

Notes for speaker *Provide examples of items that would be acceptable to carry up ladders in your workplace.*

Figure 5a *Correct - user maintaining three points of contact*

Figure 5b *Incorrect - user not maintaining three points of contact*

Figure 6 *Incorrect - overreaching and failing to maintain three points of contact*

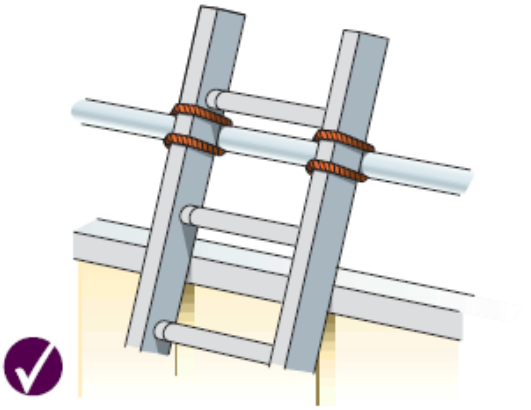


Figure 7a *Correct- ladder tied at top stiles (correct for working on, not for access)*

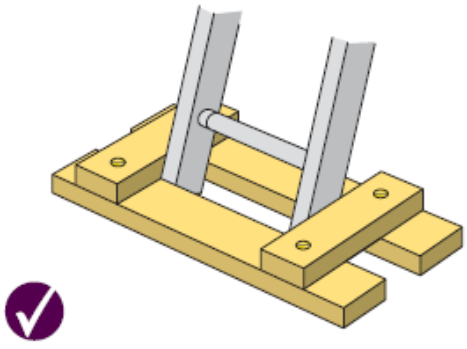


Figure 7b *Correct - securing at the base*

10 Do not overreach. Move the ladder so that you can keep your belt buckle (navel) inside the stiles and both feet on the same rung throughout the task. Do not place a foot on another surface, such as a window frame, to extend your reach.

11 When working on or close to electrical equipment that is live or may become live, use ladders that will not conduct electricity, such as those with fibreglass stiles.

12 Do not throw things from ladders.

13 What types of work can a leaning ladder be used for?

***Notes for speaker** Answers: Check these against the list of tasks identified by the company as suitable for ladder use.*

14 What types of work can a stepladder be used for?

***Notes for speaker** Answers: Check these against the list of tasks identified by the company as suitable for stepladder use.*

Safe use of leaning ladders

15 Wherever possible, tie a ladder to prevent it from slipping. This can either be at the top, the bottom or both, making sure both stiles are tied. Never tie a ladder by its rungs.

***Notes for speaker** Ask which method is the preferred option in their workplace.*

16 If you can't tie the ladder use an 'effective ladder' or one with an 'effective ladder-stability device'. This means a ladder or ladder-stability device that the suppliers or manufacturers can confirm will be stable enough to use unsecured in your worst-case scenario.

***Notes for speaker** If ladder-stability devices are used, explain when they are to be used and demonstrate how to use them correctly. Explain that they are designed to provide an extra level of protection and not to enable you to do something that would otherwise be unsafe.*

17 If the precautions suggested in paragraphs 15 and 16 of this section are not possible then you can wedge the stiles against a wall or other similar heavy object or, as a last resort, have a second person foot the ladder.

18 How and where should a ladder be tied?

***Notes for speaker** Check the answer given is the company's preferred way.*

19 Remember to check that all the basic conditions for safety have been met. This is particularly important if the ladder is not tied. Can you remember what they are?

***Notes for speaker** Answers should include the following.*

- *The ground is level, firm and free from anything that may cause the ladder to slip.*
- *The ladder is at the correct 1 in 4 angle.*
- *You can hold on with both hands when climbing up or down.*
- *The work does not involve using both hands, over-reaching or working above three rungs from the top.*

Safe use of stepladders

20 Make sure the legs are fully open before you go up.

21 When working from a stepladder, always make sure you have an available handhold. This means having a suitable handrail or not working off the top two or three rungs, depending on the design of the stepladder.

22 Avoid working side-on from a stepladder, especially when applying force, such as when drilling.

23 For higher-risk work, such as applying a side-on-force that cannot be avoided, you should prevent the steps from tipping over, for example by tying the steps to a suitable point.

24 Stepladders should not be used as a means of access to another level, such as a roof (unless they have been designed for this) as they can become unstable when you are stepping on or off them.

25 Are there any questions?

***Notes for speaker** Summarise the main points that have been learnt by the team and complete the attendance records.*