



# Health and Safety and Community Archaeology

“HEALTH AND SAFETY” is often a term negatively associated with red tape and not being able to do the things we want to do. We can all agree, however, that remaining safe and healthy on archaeological projects is our first priority, and ultimately working together to ensure the welfare of participants and members of the public, and to avoid accidents will make our activities more enjoyable and accessible for everyone.

When thinking about health and safety, it is easy to become anxious about everything that could possibly go wrong but it is important to remember that people are used to taking some risks in order to take part in interesting activities. What we need to do is make sure we avoid **UNNECESSARY** risk.

For example, when someone participates in an archaeological excavation it is because they want to dig in a hole in the ground. It is fair to assume that they understand there is some risk inherently involved. However, if the excavation sides are unstable, and they fall and injure someone, this is something which could easily have been avoided whilst still running a perfectly good excavation. The person who has come along to your dig could have reasonably expected not to be hit by falling soil. You should check the excavation is safe before the excavation begins.

Unfortunately, health and safety guidance can be complicated and confusing, especially when concerning volunteers and voluntary organisations. The following guide is intended to help community archaeology organisations establish safe working practices for their activities.

## Do you have a health and safety policy?

A health and safety policy sets out your general approach and commitment together with the arrangements you have put in place for managing health and safety in your organisation. It is a unique document that says who does what, when and how (see an example Health and Safety Policy at <https://leicsfieldworkers.org/resources/fieldwork-guides/>).

Your health and safety policy should have three parts:

**Part 1** – A statement of intent listing your organisation’s aims for health and safety.

**Part 2** – Who in your organisation has responsibilities for health and safety.

**Part 3** – What arrangements for health and safety, giving details of the specific systems and procedures, you have in place.

It does not need to be a long, complicated document!

- Meet as a group to discuss and make decisions about what you will do to help keep people safe and healthy. Write down the decisions so you can refer to them in the future and do not have to keep reinventing the wheel. This also means that, should something go wrong, you have a clear agreement about what you will do.
- Use simple language.
- List the names, positions and roles of the people within your organisation who have specific responsibility for health and safety.
- Describe in detail how you will control the risks associated with your organisation’s activities.
- Make sure these are relevant to your organisation.
- Sign and date the policy and set a review date.
- Make the statement available for everyone in your organisation to read.
- **REMEMBER:** If, in exceptional circumstances, you need to provide evidence that you have taken care to avoid people becoming injured, having a written record of your decisions can help.
- **REMEMBER:** You still need to carry out separate risk assessments for individual activities/events.

## Health and Safety and the law

How health and safety laws apply to volunteers and voluntary organisations can be unclear. Legislation, such as the **Health and Safety at Work Act etc 1974** and the **Management of Health and Safety at Work Regulations 1999** (which are criminal law), only imposes duties on employers, employees and the self-employed (i.e. people doing paid work), and those in control of non-domestic premises.

The 1974 Act includes “as far as is reasonably practicable” providing:

- Safe equipment
- Safe substances
- Necessary information, instruction, supervision and training
- A safe and healthy workplace
- A safe and healthy work environment

This includes voluntary organisations if they have at least one employee and/or are responsible for a building or room. Failing to meet the requirements of the Act could be a criminal offence.

The Health and Safety at Work Act also imposes a duty of care on employers, employees and the self-employed towards other people, i.e. volunteers, clients, customers and members of the public. This means that in the workplace volunteers are protected by health and safety legislation.

Other regulations, such as the **Construction (Design and Management) Regulations 2015**, which manages health, safety and welfare in the construction sector, and requires that ‘all practicable steps must be taken to prevent danger to any person’ in an excavation (Section 22), does not include archaeology unless it is part of a construction project.

However, whilst health and safety legislation does not apply to purely voluntary organisations with no employees and no non-domestic premises, there is still a general legal responsibility to ensure not to cause injury to people. Under civil law, everyone has a duty of care to each other and those who may be affected by their actions. If a person or organisations acts in a way which endangers someone’s life or causes them harm, then they can potentially be sued for negligence of this duty.

This means that it would be reasonable to expect that volunteers at a voluntary organisation, who are working together on something which may cause harm, would take care not to injure each other or anyone else who may be affected by their activities.

It is, therefore, a good idea to keep a record of what you/your organisation have done in case you ever have to prove that you have taken care to avoid accidents. This usually takes the form of a general health and safety policy supported by a risk assessment and method statement (sometimes abbreviated to RAMS) for every individual activity and event.





# Practical steps to make sure you are safe

## 1. What can you do to avoid incidents/accidents?

- Are there any hazards that could be removed or you need to warn people about?
- Do the participants have any particular needs that would make them more likely to hurt themselves?
- Are there checks you could do to make sure that equipment is in good working order?
- Do people need any particular skills or knowledge to enable them to use equipment safely?
- Is there anything about the activity you are running that could lead to someone becoming injured?
- Could you change the activity to reduce this risk, or give people information that will help them to keep themselves safe?

## 2. How can you help keep people safe and healthy?

- Health and safety is not just about avoiding accidents. It is also about making sure people have what they need to stay healthy.
- Think about what you will need to provide to make sure that people who are affected by your activities are well taken care of – e.g. toilets, hand washing facilities, drinking water and food (if you are not providing them have you told people to bring them themselves?), shelter etc.

## 3. Do people need any training?

- In the day to day running of your group, you will probably find that you already have the information you need to judge whether something is unnecessarily dangerous. However, there may be some cases in which more information than just “common sense” is needed to run an activity as safely as possible.
- Are there any activities that your group would like to organise which require specialist knowledge and skills in order to keep the group as safe as possible?
- If you do not have anyone in your group who has this specialist knowledge, do you need to organise training for an existing member, or find someone who is competent to run the activity?

## 4. What will you do if there is an accident?

- Have an agreement about who is responsible for taking charge in an emergency. This could be one named individual all the time, or a different person could be appointed for different activities/events
- If you organise events or activities, it is also a good idea to have trained first aiders. It is sensible, if possible, to train more than one person, so that there is likely to always be one trained person available. You may decide that there are certain types of activity at which you will ensure that there is always a first aider present.
- When an accident happens, it is important to keep a record that you can refer to later if you need to.

## 5. What else do I need to think about?

- If you use a venue is there a fire policy and procedures for checking fire safety in place?
- If you use electrical equipment, is there a procedure for checking its safety?
- If you use any dangerous substances, is there a procedure to ensure that they are used appropriately and are stored safely?

## 6. Who is responsible?

- You need to know who has overall responsibility for health and safety in your group. In most cases, this will be your management committee, as they are responsible for the actions of your group. However, you may wish to delegate day to day responsibility to a particular person or group of people.
- It is useful to know that somebody has the specific job of thinking about health and safety and ensuring the committee's decisions are put in place.

## Insurance

Do you have insurance? When undertaking activities as a voluntary organisation, it is important to protect yourselves with insurance against potential dangers. Typically, if you are carrying out archaeological activities involving volunteers you will need both **Public Liability** and **Employer's Liability Insurance**.

When you organise an activity or event you have 'public liability'. This means that your group could be responsible if a member of the public was injured at your event or had their property lost or damaged and it was deemed that the negligence of your group was the cause. There is no legal requirement to have public liability insurance but it means the insurance company may pay if a claim is made against you. The term 'public' means anyone who is not an employee or a volunteer.

When making the decision about whether your group needs public liability insurance it is worth thinking about:

- Your venue/organiser (e.g. the Festival of Archaeology) may already have public liability insurance which covers your event.  
**REMEMBER:** Accidents caused by your group's mistakes may still not be covered by the venue or organiser's insurance so check beforehand.
- Some funders may insist on you having insurance as a condition of awarding a grant.

Employer's liability insurance is the same as public liability insurance except it covers your group's own volunteers and employees, not members of the public.

If you have paid employees, you are required by law to have employer's liability insurance. If you have volunteers, you can take out employer's liability insurance to cover your group if a volunteer gets injured and makes a claim against you. Public liability insurance will not cover you for volunteers. You can usually take out a joint public liability and employer's liability insurance policy if you want both types of insurance.

If you are a member of the Leicestershire Fieldworkers or an affiliated group which operates under the Leicestershire Fieldworkers constitution please read the [Leicestershire Fieldworkers Statement of Policy Regarding Insurance Cover](#) on our website.

An **INCIDENT** is something unintended happening which has the potential to cause death, injury or ill health, or damage to property.

An **ACCIDENT** is an incident which **HAS** caused death, injury or ill health, or damage to property.



## Safe digging practices

Do not assume that everyone will know how to use the tools and equipment safely. Make sure that participants are shown how to use the equipment properly before they begin a task. Give a safety briefing to participants at the start of the fieldwork and to any new participants as they join.

To dig safely, follow these simple rules:

- **PAY ATTENTION** and work carefully.
- **FOLLOW** instructions.
- Wear suitable clothing (e.g. work gloves and sturdy footwear). **DO NOT** wear sandals or flip-flops if you are digging, particularly if you are using a mattock or shovel. If you are not used to digging you may get blisters, so wear gloves. The ground can also contain sharp stone, flints, glass, etc. so wear gloves to protect your hands and knee pads or a kneeling mat to protect your knees.
- Think about where you are putting your excavation. **DO NOT** dig it along the line of a path or where someone might easily fall into it.
- Cover your excavation with something solid or fence it off if it stays open overnight.
- **DO NOT** place your spoil too close to the excavation, there will be more soil than you think and you do not want it falling back into your hole (put the spoil at least 2m away).
- **DON'T** work too closely together. There are plenty of different tasks to be done so you should not need to get in each other's way.
- **BE AWARE** of where people are so that you do not hit them with a mattock or shovel.
- **DO NOT** raise tools above your head, run with tools or run close to the excavation.
- **LIFT** with your legs, **NOT** your back.
- You will have a lot of tools, keep them together and tidy so people do not trip over them.
- **RESPECT** the weather (see below).
- **WASH** your hands before eating any food.
- **STOP** digging if you find something that looks like a pipe or cable (alert a supervisor).
- **STOP** digging if you find heavily contaminated ground (e.g. dumps of asbestos, oil etc. alert a supervisor).
- **STOP** digging if you find what you think is human remains (e.g.. lots of bone, alert a supervisor).
- Finally, it's not a race! **DON'T OVERDO IT**, work at your own pace, at a speed you're comfortable with and have fun!

### Working outdoors

**REMEMBER**, the weather is changeable. Make sure everyone is wearing appropriate clothing and footwear. If it is sunny, people should wear sun hats, long-sleeved clothing and sunscreen. If it is cold and wet, people should wear warm layers and waterproof clothing. Make sure you explain this in the risk assessment and inform participants before they arrive on site. Be prepared to turn people away if they are not adequately dressed (e.g. someone wearing sandals to an excavation). If they sustain an injury it is not only a problem for them but may cause difficulties for other participants as well.

Have a plan for extreme weather conditions. If there is heavy rain during fieldwork it might be safer to suspend work for the duration or find alternate activities. **DO NOT** be afraid of cancelling or postponing if this is the only option.

Heavy work in hot weather can lead to dehydration and heatstroke. Make sure everyone is aware of the need to bring a drink (water or fruit juice not something fizzy) and take breaks. Programme in regular breaks. Adapt to the conditions and do not be afraid to take extra breaks if it is hot or cold.



### First Aid

Make sure that you have a first-aid kit and someone who knows how to use it. Ensure that the contents are regularly checked so that items can be replaced when used or out of date and tell everyone where it will be kept. Have a designated mobile phone for emergencies.

Be aware of the medical history of the participants. Conditions such as asthma and allergies can be serious or fatal. Ask participants to notify the fieldwork leader if they have any such conditions: s/he should be expected to treat the information in confidence.

Make participants aware of the need to carry appropriate medication for the duration of the project. Remember that, strictly speaking, it is illegal to administer drugs (even non-prescription ones) to other people. Participants must be responsible for their own medication.

### What should I keep in my first aid kit?

A basic first aid kit should contain:

- a leaflet with general guidance on first aid
- individually wrapped sterile plasters of assorted sizes
- large and medium-sized sterile, individually wrapped, unmedicated wound dressings
- sterile eye pads
- individually wrapped triangular bandages, preferably sterile
- safety pins
- disposable gloves
- alcohol-free cleansing wipes
- distilled water for cleaning wounds
- eye wash and eye bath

First aid supplies should be checked regularly to make sure they're within their use-by dates.

You might also want to include trauma shears, adhesive tape, crêpe roll bandages, a foil blanket, ice packs, disposable face masks.

Your first aid kit **SHOULD NOT** contain medicine or painkillers.

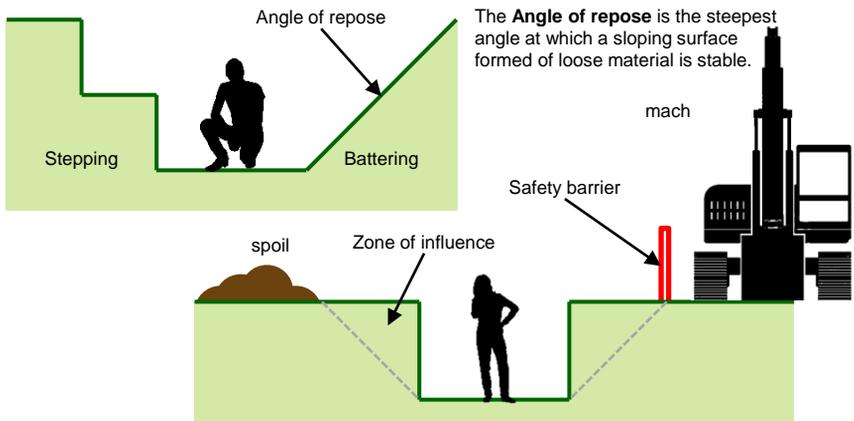




# Safe excavations

Working in excavations, even shallow ones can be dangerous. Before any excavations are dug or entered you should always plan:

- **A preferred entrance/exit.** Think about battering parts of the excavation edge back to a safe angle, or cut steps, and designate them the entrance/exit. Keep them clear of loose soil. If you need to use a ladder make sure it is safely secured.
- **Any measures needed to support the sides or excavate the trench safely (e.g. steps or battering. Do not assume the ground will stand unsupported.** For all excavations in unstable soil/overburden consider the need for shoring/battering/stepping (see *Excavation and the "1.2m rule"*). Most soil needs a batter of 45° (clay & soil) or more (sand & loose soil) to be safe (the angle of repose). Stepping the excavation sides will depend on local conditions. Consider whether hard hats will need to be worn in the excavation.



The **Zone of influence** is the volume of soil around the excavation affected by an external load (e.g. vehicles, plant, excavated material). The zone of influence's angle will depend upon site-specific factors, e.g. soil strength and density.

- **Where machinery will be positioned to excavate further.** Think the excavation process through before you start. Talk to the machine operator who will have more experience than you about the capabilities of their machine and work out how the excavation will be dug. Keep vehicles well away from any excavations once they are open (the zone of influence). The weight of a vehicle next to an excavation could cause it to collapse. Exhaust fumes can be dangerous. Do not site petrol or diesel-engined equipment such as generators or compressors in, or near the edge of an excavation.
- **Where spoil is going to be stored.** Work out the best method of removing spoil from the excavation. Do not store spoil or other materials close to the sides of excavations. The spoil may fall into the excavation and the extra loading will make the sides more prone to collapse. Spoil should be stored safely and managed regularly to avoid collapse. No one should climb on spoil heaps.
- **Weather or localised conditions (e.g. flooding) that might compromise the trench sides.** Inspect excavations before work begins each day and after any event likely to have affected the strength and stability of the excavation and after any accidental fall of other material. Sign an inspection sheet so there is a record.
- **The location of any services/building or other constraints.** Use service plans and a cable avoidance tool (CAT) to locate services prior to excavation. Do not excavate within 15m of a known water mains or sewer or in the vicinity of other services or electrical cables (underground and overhead) without a safe system of work. Mark out any known services on the ground so they can be avoided. Do not work beneath overhead cables or let machinery pass below an overhead cable without a safe system of work. Make sure adjacent structures are not undermined.
- **How you would get out if there was an emergency.** Make all staff are aware of how best to exit the trench in an emergency.
- **Whether the trench is accessible to members of the public.** Fence off all excavations in public places or where the public has access. Put up deep excavation warning signs.



**What is wrong with this excavation?** It is not a staged photograph but a publicity shot of a real dig, used in a press article. For reference the hole measures 2m x 1m and was dug to a depth of 3m! It was not in the UK.

For starters, whilst it is beautifully excavated, it is a deep, confined space with unsupported sides, no safe access and no safety barriers. The excavator is not wearing adequate PPE.

How will this person get out in an emergency?

What would happen if something/someone falls into the excavation?

This person **SHOULD NEVER** have been allowed to work in this space!

## Excavation and the "1.2m rule"

An often quoted 'rule' about the depth of an excavation is that the sides must be supported or battered back if it is more than 1.2m deep. This rule is **NO LONGER** something that should be considered. It comes from an old health and safety regulation which is no longer current.

The need to support an excavation very much depends on ground conditions and other risk factors. For instance, a shallow trench dug in sand is more likely to collapse than a deeper trench dug in clay, equally someone standing in a trench may be safe but someone kneeling could easily be buried.

Today, there is **NO** maximum depth for an unsupported excavation. That **DOES NOT** mean that excavations of all depths must be supported. It **DOES** mean you need to assess if an excavation is safe, and what (if any) support it needs.

Current health and safety regulations tend to not give a specific depth for needing trench support because every site is different - different hazards, different conditions, different ground. What is safe and perfectly acceptable on one site, may be dangerous on another. Also, what is safe one day might not be safe the following week. If ground dries out it may be more likely to crumble. In heavy rainfall and wet weather water may put additional pressure on the sides of an excavation.

**REMEMBER:** Only dig unsupported excavations as deep as you feel it is safe to do so (if this is only 30cm so be it). **DO NOT** enter an excavation if you think it is unsafe to do so. Inspect your excavation daily and after any sudden changes in condition to make sure that it is still safe to enter. Keep a record of your inspections.



# Working safely with machinery

Working with machinery can be extremely dangerous. The two common machines you may encounter on an excavation are diggers (JCB and 360° excavators) and dumper trucks.



### Before you start working with machinery:

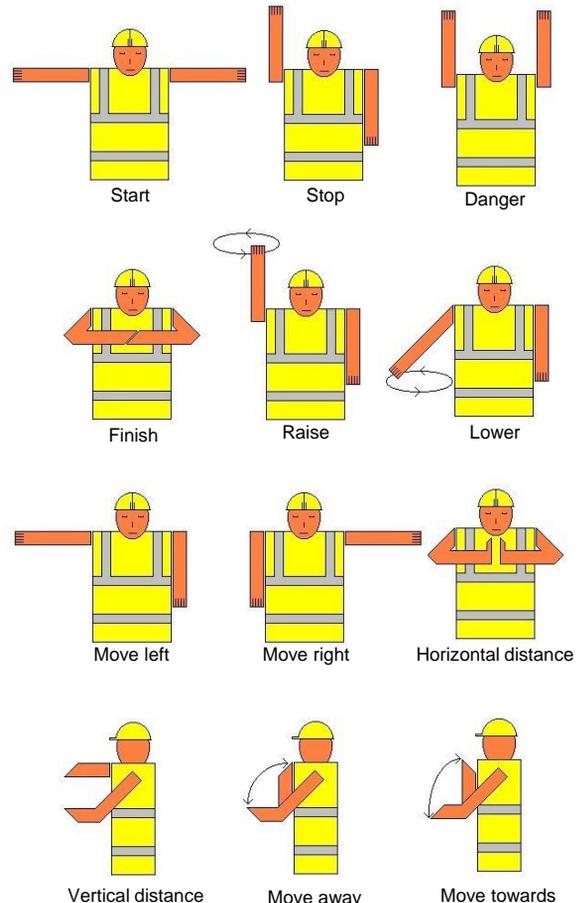
- Make sure the machine operator/s competent in their operation and has the correct certification for the work.
- Make sure everyone is wearing PPE whilst machinery is working on site. Minimum PPE includes high visibility clothing, hard hats and suitable footwear. Ear protection should be available if required (ear plugs are better at noise reduction than ear defenders).
- Do not leave machinery running where exhaust gases can build up.

### When you are working with diggers:

- Make sure someone acts as a banksperson to supervise the machine during all archaeological work and keep everyone else away from the working area.
- Make sure that people working with the machine stand at a safe vantage point away from the radius of the bucket arm and in full view of the driver. They should make sure that the driver has fully stopped the machine and is aware of their intentions before inspecting the stripped ground.
- Agree basic hand signals with the driver before work commences.
- Do not allow passengers on the machine at any time unless on a seat or safe riding position.
- Do not approach machinery particularly from behind unless you are sure that the driver has seen you.
- Make sure bankspeople are aware of the dangers involving the changing of buckets/breakers. The machine operator should confirm the bucket/breaker has been attached properly by crowning (lifting) the attachment away from other people before work re-commences.
- Make sure that everyone is aware that the weight of machinery can affect the stability of the sides of an excavation.
- Make sure everyone is aware of the possibility of unforeseen hazards in the ground (such as services) or any overhead hazards (as for example power cables, telephone wires etc).

### When you are working with dumper trucks:

- Make sure dumpers are not used on roads unless they comply with the Road Traffic Acts.
- Make sure that the loading is even and the load does not obscure the driver's vision.
- Make sure that loads are not tipped while the machine is in motion. During loading/unloading, the handbrake must be applied and the gears put in neutral. Adequate means of preventing an overrun should be provided on all edges.
- Remember, dumpers require more room to manoeuvre than is often realised. The driver should be aware of local gradients, obstructions and ground conditions and reduce speed when necessary.



Common used signals for directing machinery



# Risk Assessments

## What is a Risk Assessment?

A risk assessment is the examination of a task, job or process that you carry out for the purpose of identifying the significant hazards, the risk of someone being harmed and deciding what further control measures you must take to reduce the risk to an acceptable level.

Risk Assessments are carried out to satisfy the requirements of legislation **AND ABOVE ALL** to ensure the health and safety of the people carrying out the task and the health and safety of the people around them.

There are two types of risk assessment – dynamic and formal:

- **Dynamic risk assessment** is the practice of continually observing, assessing and analysing an environment while we work, to identify and remove risk. The process allows individuals to identify a hazard on the spot and make quick decisions regarding their own safety. We do it all the time and it is often subconscious.
- **Formal risk assessment** is the process of systematically reviewing evidence that define or estimate a risk in the population. The purpose is to guide risk management (e.g. preventive and control measures). Formal risk assessments are prepared in advance, recorded and monitored on a regular basis.

You should **NEVER** rely on dynamic risk assessment on its own, it should be used to complement and fill in any gaps that you could not predict when completing a formal risk assessment.

## How long should a risk assessment be kept?

There is no easy answer to this. Keeping records is an integral part of health and safety, requiring a regular assessment of what records should be kept, how long they should be kept and who should control them. GDPR and the Data Protection Act 2018 make these considerations even more important.

The GDPR requires organisations to provide a reasonable level of protection for personal data. Personal data includes name, job title, home address, email address and phone number — anything that could allow the identification of the person. The data should be protected against unlawful or unauthorised processing or accidental loss or destruction. This includes health and safety records such as Risk Assessments which may contain personal data.

There are a variety of reasons for keeping health and safety records:

- Legal requirements.
- To demonstrate compliance with legal duties and to show effective health and safety management procedures are in place.
- To use as part of a defence against prosecutions or claims for compensation.
- To provide data to monitor health and safety performance statistics and to show trends or problems in health and safety procedures.
- To provide information (e.g. safety policies and risk assessments).

Risk assessment records should be kept for as long as the process or activity, to which the assessment refers, is performed but should not be kept for longer than absolutely necessary. It is also worth remembering, however, that civil claims for injury can be made up to 3 years after an incident occurred or the person became aware of their condition (which could be decades later).

Generally, therefore, it is a good idea to keep risk assessments relating to the previous 3 years and a good rule thumb for most health and safety records is to keep them for **5 YEARS** after the process/activity is finished.



## When should a risk assessment be done?

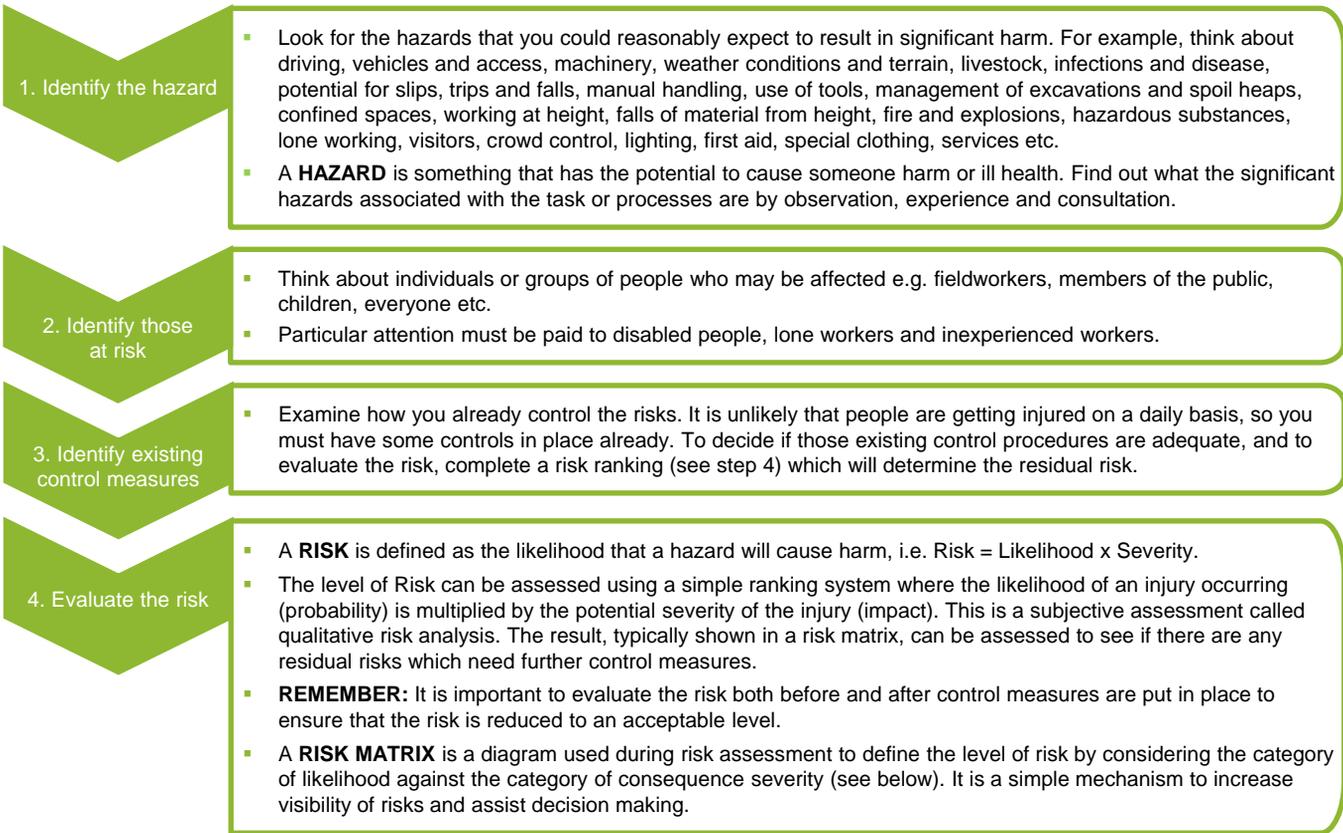
Separate risk assessments should be carried out for all tasks or processes undertaken by your organisation. They should be carried out before the task starts, or in the case of existing or long running tasks, as soon as is reasonably practicable.

Risk Assessments should also be reviewed on a regular basis; monthly, annually, bi-annually, depending on the risk, or if something changes i.e. a new worker, a new location or a change of process etc.





# How to carry out a risk assessment



Likelihood	Severity
<b>UNLIKELY</b> e.g. an injury which is unlikely to occur except in a freak accident.	<b>MINOR INJURY</b> e.g. minor cuts and bruises, mucous membrane and eye irritation from dusts, nuisance and irritation e.g. headaches, eye strain, temporary discomfort (i.e. minimal first aid needed).
<b>POSSIBLE</b> e.g. an injury which could occur sometimes.	<b>MAJOR INJURY</b> e.g. lacerations, burns, concussion, fractures, sprains, temporary deafness, dermatitis, ill-health leading to temporary disability (i.e. injuries which will take a prolonged time to heal, need major first aid/hospital needed).
<b>CERTAIN</b> e.g. an injury which could occur repeatedly or is expected to happen.	<b>INCAPACITY OR DEATH</b> e.g. amputations, major fractures, permanent loss of sight and/or hearing (total or partial), poisoning, ill-health leading to permanent disability, life-shortening diseases, fatal injuries (i.e. permanently debilitating, need major time in hospital needed).

RISK MATRIX			
Likelihood	Severity		
	Minor injury	Major injury	Incapacity or death
Unlikely	Trivial risk	Acceptable risk	Moderate risk
Possible	Acceptable risk	Moderate risk	Substantial risk
Certain	Moderate risk	Substantial risk	Intolerable risk





# How to carry out a risk assessment

## EXAMPLE: ASSESSING THE RISK OF USING AN ARCHAEOLOGICAL TROWEL

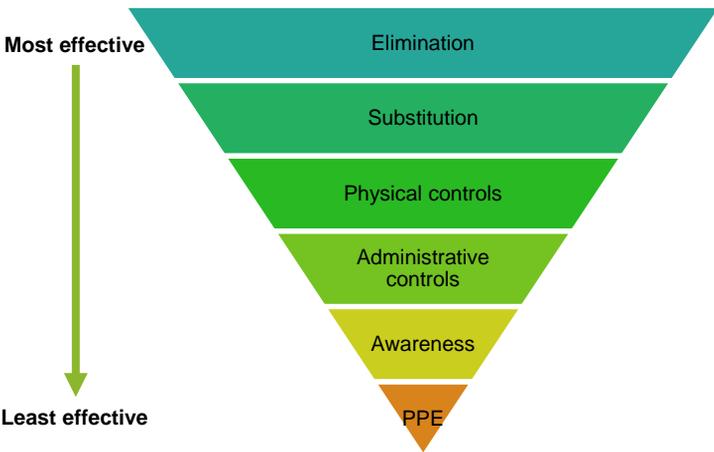
HAZARD	LIKELIHOOD	SEVERITY	RISK
<b>Poor maintenance / sharp metal edges</b> Minor cuts	Possible	Minor injury	Acceptable
<b>Over use / incorrect use</b> Repetitive strain injury, posture-related strain injuries	Possible	Major injury	Moderate
<b>Incorrect use / contact with ground</b> Minor cuts & bruises	Certain	Minor injury	Moderate

### 4. Evaluate the risk cont.

- The risk matrix allows us to categorise the risk level of a hazard and prioritise control measures:
  - INTOLERABLE RISK** = Urgent action required (work should not start or continue until the risk has been reduced. If it is not possible to reduce the risk with unlimited resources, work must remain prohibited).
  - SUBSTANTIAL RISK** = High priority (work should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves work in progress, urgent action should be taken to reduce the risk).
  - MODERATE RISK** = Medium priority (efforts should be made to reduce the risk, but the cost of prevention should be carefully measured and limited. Continued monitoring and assessment may be necessary to improve control measures).
  - ACCEPTABLE RISK** = Low priority (no additional controls required. Continued monitoring and assessment may be necessary to improve control measures).
  - TRIVIAL RISK** = No action required.
- If the risk level is trivial or acceptable you do not need to introduce further control measures. If the risk level is moderate, substantial or intolerable you must do something to bring the risk to an "acceptable" level.
- The risk matrix also gives you a clear indication of how to prioritise the risks, with intolerable risks the first priority, then substantial risks and so on.

### 5. Decide new control measures

- If the risk is not adequately controlled decide which new control procedures are required and ensure these procedures are implemented. The control measures are the actions performed to reduce either the probability of the accident happening or the severity of the outcome, and where possible both.
- When considering what measures to put in place it is important to consider both severity and likelihood in order to minimise the overall risk.
- When deciding what new control measures will be required, it is helpful to work through the 'hierarchy' of controls (see below).
- Control measures should be **PRACTICAL** and **EASY** to understand, **RELEVANT** to the hazard, **CAPABLE** of reducing the risk to acceptable levels, **ACCEPTABLE** to the workforce and **STRAIGHTFORWARD** to operate.
- After you have implemented the new control procedures, re-rank the risks to determine the new residual risk, you should aim to get the risk to as low as is reasonably practicable until it is at an acceptable level.



### Hierarchy of risk control

- ELIMINATION:** Remove the risk by getting rid of the hazard altogether.
- SUBSTITUTION:** Remove/reduce the risk by replacing the hazard with something less likely or severe.
- PHYSICAL CONTROLS:** Remove/reduce the risk by isolating the hazard.
- ADMINISTRATIVE CONTROLS:** Reduce the risk using safe systems of work, putting rules in place to ensure safe use/contact with hazard.
- AWARENESS:** Information, instruction, training & supervision – warn people of the hazard and tell/show/help them how to deal with it.
- PPE:** Personal Protective Equipment – as a LAST RESORT dress people appropriately to reduce severity of accident.



# How to carry out a risk assessment

## Example: Hierarchy of risk control for using a trowel during an excavation

- **ELIMINATION:** Probably not practical in the context of an archaeological excavation. Do you need to excavate?
- **SUBSTITUTION:** Use alternate tools (eg. using a hoe to clean a large area or a mattock or spade to dig a feature instead of a trowel) to reduce/eliminate repetitive strain and posture-related injuries.
- **PHYSICAL CONTROLS:** Keep the trowel maintained and replace it if broken.
- **ADMINISTRATIVE CONTROLS:** Schedule regular breaks to reduce the time spent trowelling.
- **AWARNESS:** Ensure people know how to use a trowel with appropriate training and supervision.
- **PPE:** Wear gloves whilst trowelling.



### 6. Record the findings

- Keep copies of the risk assessment for your records and for inspection by the HSE should they ever be requested.
- Risk assessment records should be kept as long as the particular process or activity, to which the assessments refer, is performed (see *How long should a risk assessment be kept?* above). Examination of past assessments allows changes and improvements to be identified.

### 7. Implement and inform

- For a risk assessment to be effective you must relay the findings to everyone who is affected by it.
- Explain what needs to be done, why it needs to be done, who needs to implement it and when it needs to be done by.
- Ensure that adequate resources are planned and monitor all aspects of the plan.

### 6. Monitor and review

- You must ensure that the control measures are achieving the desired level of control. You must review the assessment on a regular basis or if anything changes e.g. new staff, change in machinery or process.

**REMEMBER:** A well designed risk assessment is not created to make your life more difficult, but to keep you free of injury or even death. The Leicestershire Fieldworkers provide a risk assessment template for its members and affiliated groups. It can be downloaded at

<https://leicsfieldworkers.org/resources/fieldwork-guides/>

