

## Risk assessment guide for outdoor activities

All of our citizen science projects allow teachers and students to engage with the outdoor environment, whether digging for earthworms, burying tea bags or measuring the health of fresh water. Each project has Health and Safety guidelines that you should read prior to doing any risk assessment. It is very important that teachers are aware of the nature and risks in their school grounds or nearby green spaces where activities would be delivered.

A risk assessment is a vital element for health and safety management and its main objective is to determine the measures required to comply with statutory duty under the [Health and Safety at Work Act 1974](#) and associated regulations by reducing the level of incidents/accidents.

## The 5 Steps to Risk Assessment

### Step 1: Identify the hazards

In order to identify hazards you need to understand the difference between a 'hazard' and 'risk'. A hazard is 'something with the potential to cause harm' and a risk is 'the likelihood of that potential harm being realised'. Hazards can be identified by using a number of different techniques, such as walking around the outdoor spaces with other teachers, support staff or community officers dependent on the outdoor space.

### Step 2: Decide who might be harmed and how

Once you have identified a number of hazards you need to understand who might be harmed and how, such as 'students using digging equipment' or 'teachers/students taking measurements from water bodies'.

### Step 3: Evaluate the risks and decide on control measures

After 'identifying the hazards' and 'deciding who might be harmed and how' you are then required to protect the people from harm. The hazards can either be removed completely or the risks controlled so that the injury is unlikely.

### Step 4: Record your findings

Your findings should be written down as it's a legal requirement; and by recording the findings it shows that you have identified the hazards, decided who could be harmed and how, and also shows how you plan to eliminate the risks and hazards.

### Step 5: Review your assessment and update as and when necessary

You should never forget that few outdoor spaces, even on school grounds may stay the same and as a result any risk assessment associated with outdoor citizen science projects should be reviewed and updated when required.

## Conducting a Risk Assessment

When following up with the writing of any risk assessment you should have adequately assessed the outdoor space for hazards, deciding who may be harmed and by what activities, and considered the control measures that you will put in place so that risks are controlled and so that injury is unlikely. Risk Assessments should be reviewed regularly, but especially when there have been significant changes to the outdoor spaces.

For more information on Health and Safety at Work visit: <http://www.hse.gov.uk/risk/>

There is also a useful section called Mythbusters to clarify any questions you might have around Risk Assessments and Health and Safety: <http://www.hse.gov.uk/myth/index.htm>

In terms of assessing risk, written risk assessments require you to:

1. Identify the hazard.
2. Persons who may be harmed and by what activities.
3. Existing or pro-active measures to control risk.
4. A risk rating before and after the control measures.
5. Additional or reactive control measures.
6. A risk rating after additional or reactive control measures.

Here is an example risk assessment pro-forma by OPAL which outlines the areas that require completing. It can be found at [www.opalexplornature.org/education-packs](http://www.opalexplornature.org/education-packs)

HAZARD OBSERVED	WHO MAY BE HARMED?	POSSIBLE OUTCOME	RISK RATING BEFORE CONTROLS	CONTROL MEASURES	RISK RATING AFTER CURRENT CONTROLS	FURTHER CONTROLS REQUIRED?	RISK RATING AFTER ADDITIONAL CONTROLS

The use of a coloured risk rating matrix such as the example one provided in the OPAL example risk assessment above for citizen science projects helps determine a risk rating.

This involves understanding what the likelihood (Remote, Unlikely, Possible, Highly likely) versus the impact or consequence is (Low, Medium, High or Very High or shown below as Acceptable, Moderate, High, Unacceptable).

		SEVERITY/CONSEQUENCE				
		Nil	Slight	Moderate	High	Very high
<b>LIKELIHOOD</b>		Very minor injuries	Requires 1st aid treatment	Significant injury	Serious injury, permanent disability, death	Multiple deaths
	Remote	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
	Unlikely	Acceptable	Acceptable	Moderate	Moderate	High
	Possible	Acceptable	Moderate	High	Unacceptable	Unacceptable
	Highly likely	Acceptable	Moderate	High	Unacceptable	Unacceptable

Here is a potential example from Earthworm Watch of a hazard and the control measures in place to mitigate the impact of the risk to teachers and students.

HAZARD OBSERVED	WHO MAY BE HARMED?	POSSIBLE OUTCOME	RISK RATING BEFORE CONTROLS	CONTROL MEASURES	RISK RATING AFTER CURRENT CONTROLS	FURTHER CONTROLS REQUIRED?	RISK RATING AFTER ADDITIONAL CONTROLS
Soils from earthworm handling	Teachers and Students	Allergic reaction to soil bacteria	Low	Use of gloves, antiseptic hand gels and handwashing.	Low	N/A	N/A

There are many different types of risk assessment but the core principles are the same. It would also be useful to speak to your designated Health and Safety lead in your school or the teacher responsible for risk assessments in the first instance, prior to creating new ones.

The process should not be onerous, but risk assessments should be based on the five step approach to risk assessment found on the HSE website:

<http://www.hse.gov.uk/risk/controlling-risks.htm>

For more information on risk assessments and example risk assessments, please visit here:

[www.hse.gov.uk/risk/casestudies/index.htm](http://www.hse.gov.uk/risk/casestudies/index.htm)

Useful links for how to conduct fieldwork (including risk assessments) is also available on TES:

[www.tes.com/articles/useful-links-fieldwork](http://www.tes.com/articles/useful-links-fieldwork)