



THE MUSEUM  
OF ENGLISH  
RURAL LIFE



University of  
Reading



# Why is farming a risky business?

Technology on farms is increasing but does this make them safer?

This resource introduces your class to health and safety on farms from the past, spotting risks on photographs in our archive, exploring the present and solutions for the future. Pupils learn how to keep safe using tools and how to take risks in a managed environment. They can take a quiz on whether to be a farmer and debate whether farming will always be a risky business with advancements in technology.

# Before your visit

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Introducing risk by layering learning and relating farming to themselves:

## Step 1

If you have a garden or school garden where you grow food, what hazards or risks are there? What could happen as a result of these? Examples could include a pond, spray chemicals, tools, holes.

## Step 2

Taking use of tools further. Give a protective clothing demonstration, if you can, walk in class with it on. Deliberately wear excessive protection needed for a garden fork and then ask them to reduce until it is right (perhaps sturdy shoes) and as you unpeel the layers, talk about what you are removing and why, perhaps a boiler suit, goggles, gloves or steel toe cap boots.

**Discuss:** the importance of being able to afford protective clothing and training in skills to use the tool.

What do you do every day to protect your health and wellbeing? Pupils may suggest brushing their teeth, eating well, reducing sugar intake using food labels, exercising, and staying safe when walking to school by using crossings.

## Step 3

Look at some photographs of accidents and risk taking or set up information photographs and spot the risks – circle the images on the whiteboard. You will find some photographs from a 1955 safety pamphlet on the next page.

Compare health and safety standards in the 1950s, 1960s and today. Children worked on farms. Farms are places of work. Now the risks to children are often from trespassing on farms where children are not supervised. Examples of accidents arising from being without adults include being struck by moving vehicles or contact with animals that causes injury or in some cases death.

In the past there was a hierarchy in agricultural work – the more dangerous jobs and including work at height were often given to the less-experienced in the team i.e. children or young people.

In other countries such as the Gambia in West Africa, some children work in fields and are trusted with machetes. You could use an internet-sourced image to discuss child labour

## THEMES AND TOPICS

- Investigating/ analysing previous technologies and the work of others
- Understanding development in design and technology
- Design impacts on people, society and the environment
- Health, safety and wellbeing at work

## LINKS WITH OTHER ACTIVITIES

These activities could be used in conjunction with:

- What was farming like before modern technology?
- The impact of technological change on food production.



This resource works alongside our short **Risky Business** animated film.



Man caught between wall and trailer,  
Power Farmer Farm Safety, 1955



Tractor and trailer, with men standing in the  
trailer, Power Farmer Farm Safety, 1955



Photo of a man up a ladder  
thatching a roof

and the law in the UK versus global examples. Think about what differences in the economy, access to education, or other opportunities might have in relation to children and work in different circumstances around the world. Children who grow up on farms in the UK often work and contribute towards their family farm. Do you think they should?

If you have toy or circus stilts introduce hop picking. Stilts were used to access tall hop plants, you can see an example of these on [page 6](#). If you would like your class to see the stilts in the museum before they visit, this [link](#) will take you to The MERL Streetview tour.

Learn a song from Kentish hop picking. To listen to the tune of the hopping song, [click this link](#) and then click the speaker icon. This is kindly made available by the English Folk Dance and Song Society. The recording is from the Ken Stubbs collection of field recordings held at the Vaughan Williams Memorial Library.

Hops were cultivated in England from the early-sixteenth century onwards. The earliest examples of 'hopping' – people coming from other parts of the country to work in hop-picking – date to the mid-seventeenth century. English hop-growing was at its height in the late-nineteenth century, peaking in the 1870s. It had declined significantly by the early-twentieth century due to the impact of imported hops. The first English hop-picking machine was made in 1934 but mechanisation only began to have a major impact after the Second World War. By the later-twentieth century very few hops were still being picked by hand.

So popular was the annual hop that it was known as the 'Londoner's holiday', and for many 'East Enders' it was the nearest to a holiday they ever got.

Use historical photographs or articles demonstrating unsafe practice and spotting risks.

Build on their observations: e.g. loaded tractors mounting obstacles, electrical items near a pond, horse's back legs near a child, gate leaning off its hinges, open fires.

Pupils could use a farm set to create hazardous situations for their friends to find then remove or reduce the risk and label any comments with sticky notes gathering ideas for extra precautions that may be necessary. If the children wish, they can create further examples of farming risks out of modelling material or paper.

*Oh, they say hopping's lousy  
I don't believe it's true  
We only go down hopping  
To earn a bob or two.*



Families picking hops on their holidays

# Visiting The Museum of English Rural Life

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Look at the man traps in the Making Rural England gallery which were used to prevent and stop poachers. Explain they are illegal in the UK now, but trespassing remains a serious risk to children on farms. Visiting with families for specific family events is great fun and you can enjoy finding out about more together. Remember Open Farm Sunday is an annual national event.

## Laws to protect workers and the public

The Threshing Machines Act of 1878 was one of the first to address protecting farmers from accidents. In 1956 the Agriculture (Safety, Health and Welfare Provisions) Act was passed, followed some years later by the 1974 Health and Safety at Work Act.

If you would like to find out more about current health and safety advice and laws visit government guidance [here](#).

On the next two pages there is a matching exercise based in the Forces for Change and Our Country Lives galleries. One activity includes looking at a threshing machine. As children may be unfamiliar with these you may want to share some information before you visit. For more information on what threshing machines are and how they work, please use [this link](#).

# Matching exercise: can you reduce the risk?

## Hop stilts

Find the object, identify the risk to people and match up to the precaution(s) that can be taken to reduce the risks. Draw lines between the object and the precautions you would take. We have done one for you!



- Falls from height
  - Training
  - Use machinery instead
  - Better quality stilts with more straps
- A red arrow points from the text 'Falls from height' to the precaution 'Better quality stilts with more straps'. A vertical dotted line separates the two columns of text.

# Matching exercise: can you reduce the risk?

## Threshing machine

Find the object, identify the risk to people and match up to the precaution(s) that can be taken to reduce the risks. Draw lines between the object and the precautions you would take.



- Falls from height
- Contact with machinery
- Steel toe cap boots
- Training

Now we have ambulances and air ambulances, but can pupils think of any barriers to reaching the patient in the past? Pupils may consider rurality and distance from an ambulance station or hospital, agricultural workers working on their own in the past without mobile phones.

Visit the Rural Healthcare section of the museum to look at the basic health care available before the NHS. The Museum Collections show that agricultural workers could choose to pay a friendly society, rather like insurance, to pay out should they be affected by illness or injury. Object no.15 is a contribution box. Pupils can see a Friendly Society banner in The Village Idyll section in the same gallery.

You could ask pupils to compare what they have in the school first aid kit brought with them that day to what is on display and available in the past.

Contribution box, first half of the 20th century



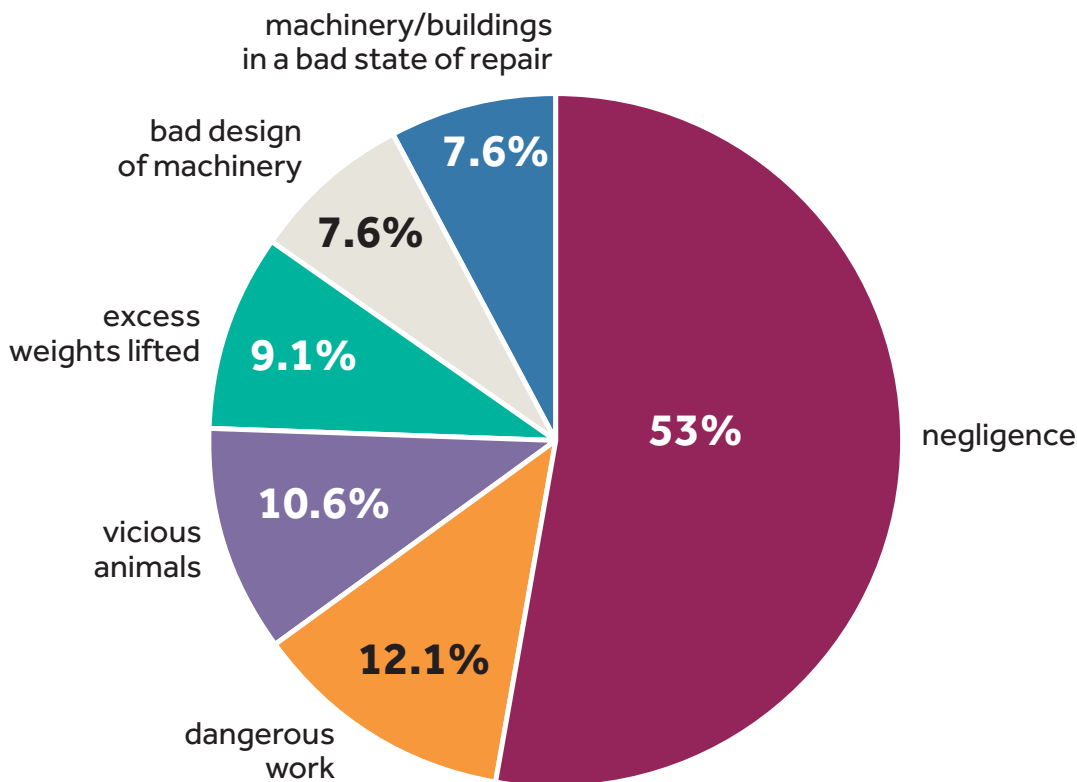


# After your visit

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Farming is a risky business, a business and a place of work with heavy machinery and animals, working in all weathers.

The following figures are estimates of farm accidents in Buckinghamshire in 1947 by type of accident:



Today, Farm Safety Week uses social media to spread positive tips about being safe on a farm. Sadly, the UK's farming industry has the worst rate of fatal injuries in UK industry.

Farmers often work in isolation but can reduce the risk of injury, as well as being on their own when they are hurt, if they work as part of a team. Take the farming quiz on the next page to find out whether you have the attributes or skills of a farmer and can stay safe.

# Quiz: Could I be a farmer?

**Ready to be a farmer?** This quiz asks you to think about working in the countryside. You may want to consider whether you would sell your produce at supermarkets or a local market. It's just for fun so don't think about the questions too much. Count up your points at the end.

Yes= 5 Sometimes= 3 No= 0



	Yes (5)	Sometimes (3)	No (0)
Do you enjoy being outdoors in all weather?			
Do you care about where our food comes from?			
Would you be able to work with animal poo?			
Do you like waking up early? (you may see the sunrise – milking can start at 5am!)			
Do you enjoy heights e.g. being up high on a ladder?			
Do you think you could drive large-scale farm machines, or want to? (this can mean tractors, buggies, harvesters and trailers full of livestock)			
Are you happy working on your own a lot?			
Do you like working with other people (teamwork can keep you safer)?			
Are you strong or have the ability to keep going when things get tough? (resilient)			
Are you good at finding solutions to problems?			
Can you keep detailed records?			
Does farming look fun to you?			

**TOTALS**

*Reading your point score*

**0–19 points:** being a farmer may not appeal to you at the moment. What other activities do you enjoy? Perhaps ask yourself or others what you are good at?

**20–39 points:** you aren't quite sure about working in the countryside, but you certainly have skills or enjoy some activities that farmers need to do their job.

**40–60 points:** Your answers show you have a strong skills and interest in farming activities. Do you want to be a farmer in the future? Why not find out more online at the **University of Reading School of Agriculture, Policy and Development!**

## You can explore these key areas of Health and Safety on farms

### *Animals – handling and housing*

Make comparisons between pets and livestock: size and time spent looking after pets in your own home versus the management of large numbers of animals in fields or buildings. Observe cows when next on a walk in the countryside and explore safety issues around them.

Cows can be easily stressed and are very heavy. It may make it easier if pupils can relate to a weight of a cow, they can try carrying a bucket of water they first weigh themselves. Or, using scales pupils could combine the weight of the class. How does the bucket of water or the total weight of the class compare to a fully-grown Holstein cow? She will weigh an average of 680 kilograms. That's nearly 1 ton and about two-fifths as heavy as a car.

### *Vehicles*

Remind pupils of the monster vehicle they saw on the animation.

In 2018/2019 transport was the biggest killer in agriculture.

Discuss together some ideas for reducing risk then ask them to invent their own vehicle with safety features that is based on past and present vehicles.

Pupils could act out the **Safe Stop procedure** on chairs:

Always use the **Safe Stop procedure** when leaving a vehicle unattended:

1. Apply the parking brake
2. Lower mounted equipment to the ground (lever action)
3. Stop the engine
4. Remove the starting key
5. Lock or otherwise secure the tractor.

### *For older pupils*

You could challenge students to use programming software to design a program to control a tractor to plough a field. This will help introduce the concept of satellite programmed routes, how remote working *could* reduce accidents and how using technology could develop future farming.

## Debate the question: Will farming always be a risky business?

**Guidance for teachers:** set the scene and consider a 'code of conduct'. You can get tips for a great debate in another of our teacher resources 'What is the future of our countryside'. See the section 'holding the debate' on [page 5](#).

Share the information on the next page, discuss the questions and then ask the class to divide between 'yes' farming will always be risky and the 'no' camp who don't agree.





## Some information on technology to inform debates

Some estimates, including the United Nations in 2017, suggest the world's population will rise to 9.8 billion. Nearly all of this population increase will occur in developing countries.

Because of this growth in population, there is pressure throughout the world for higher agricultural production and reliable crop status information. To know what is happening to crops and produce more we are using technology such as images collected by satellites. Farmers can find out what is available and where, how healthy it is and how much.

Geographic Information Systems (GIS) tools and online web resources can help farmers to work out how much crop will be produced and manage their agriculture production by using multispectral imagery collected by satellites, fixed wing aircraft or Unmanned Aerial Vehicles (UAVs).

### Questions

- How would using these tools reduce risk?
- Can you think of any risks that technology may create?
- Why might people resist increasing these types of technology in farming?

Older pupils may like to find out more about latest technological advances in farming using Swiggle (KS2) or another online search platform.

Farmer using autonomous tractor with self driving technology, augmented mixed virtual reality to collect, access, analyse soil

# MERL galleries

