

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

Your class will have the opportunity to discover how technology in our countryside changed rapidly during the last century seeing first hand some of the Museum's large farm machinery and discovering their function. These large artefacts, from the threshing machine to the Ferguson tractor, will allow students to observe and discover how farming has changed over the past fifty years. Using these objects for comparison, students will be able to consider modern farming today and how it might change in the future with the aid of computers, GPS and other new inventions.

Learning outcomes

By the end of the activities students will:

- have a greater awareness of how technology has changed in the countryside and with each change, what the impact has been for people working with it
- be better able to find and process information to make deductions and categorise details
- increase their knowledge of the solutions that people came up with to work the countryside and how this continues to this day
- use information gleaned from the pre-visit and visit to inform ideas and drawings of their own invention/design.

Before your visit

Farm inventions

This is an opportunity for students to research, analyse and discuss how we farm the countryside today and think about what types of equipment and machinery is used on farms and why.

At school find out more about modern combine harvesters and how they are controlled by computers. When visiting the Museum of English Rural Life you will be able to see many large objects that show how the combine harvester evolved from much simpler mechanical objects. For example, the invention of the reaper (which cuts the crop), followed by the reaperbinder (which cuts and binds), the thresher (which separates the grain from its husks and stalks) and then the combine harvester which does it all.

Discuss the overall advantages and disadvantages of new farm technology since the 1950s. This could include increased amount of crops produced, less physical work for the farmer, increased noise pollution and fewer jobs available.

Farmers Weekly is a great resource to use for looking at farm machinery, farmers and the latest ideas in farming, fwi.co.uk

Book: Farmer Duck Martin Haddell (ISBN 13: 9781564029645, Publisher: Candlewick Press (MA), 1996) (KS1/KS2)

THEMES AND TOPICS

- Investigating/analyzing previous technologies and the work of others
- Understanding development in design and technology
- · Design impacts on people, society and the environment
- · Advancement of mechanical systems
- How technologies have helped shape the world
- How forces are transferred through simple machines.

LINKS WITH OTHER ACTIVITIES

This activity could also be used in conjunction with the 'How are different machines and objects, past and present, used in country life?' resource.

Visiting the Museum of English Rural Life

The Museum of English Rural Life has brilliant collections of technology from across the past; many are big, easy to observe and walk around.

Overleaf is a table that can be used by your class for students to find out about some key objects. The basket might seem an unusual object to include. However, baskets were very important for transporting goods, particularly when railways expanded and more food and other items were transported around the UK and the world.

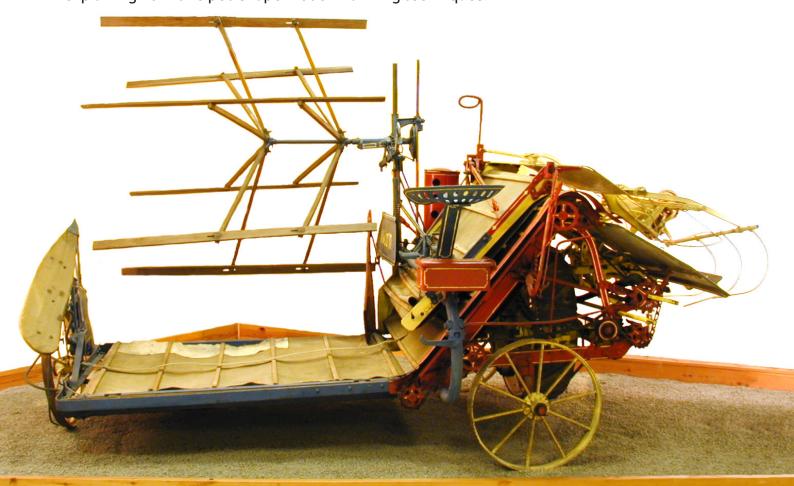


Object (and gallery where it is)	How did it work?	What is unique about it?	What was it used for?	How old is it?	What is it made of?	Advantages	Disadvantages	How has it changed or what has it been replaced by?
Ferguson Tractor (Collecting Rural England gallery)								
Threshing Machine (Forces for Change gallery)								
Landrover (Town and Country gallery)								
Baskets (Making Rural England gallery)								

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Reaper binder (Our Country Lives gallery)								
Wagon (Wagon Walk gallery) – choose one that did a particular job								
An object of								
your choice?								

What next?

- Discuss what your class discovered about each object and how their results compare. Produce a master table that summarises their discoveries with words and photos in chronological order.
- How would your students improve an object's design? Choose your favourite machine then design an improvement and share your ideas with your group and/or class.
- What will be the next state-of-the-art farm machinery?
 - Design and draw your new invention.
 - What will it do?
 - How will it make a positive difference for farmers?
 - What will it look like?
 - How much would it cost?
 - How will it affect the environment?
 - Will it have a low carbon footprint in terms of how it is used and functions?
- Design a brochure advertising the latest state of the art farm machinery.
- Find objects that they consider to be the most important developments of modern agriculture. Design a leaflet about one of the objects chosen and its modern equivalent, explaining how it helped shape modern farming techniques.



MERL galleries

