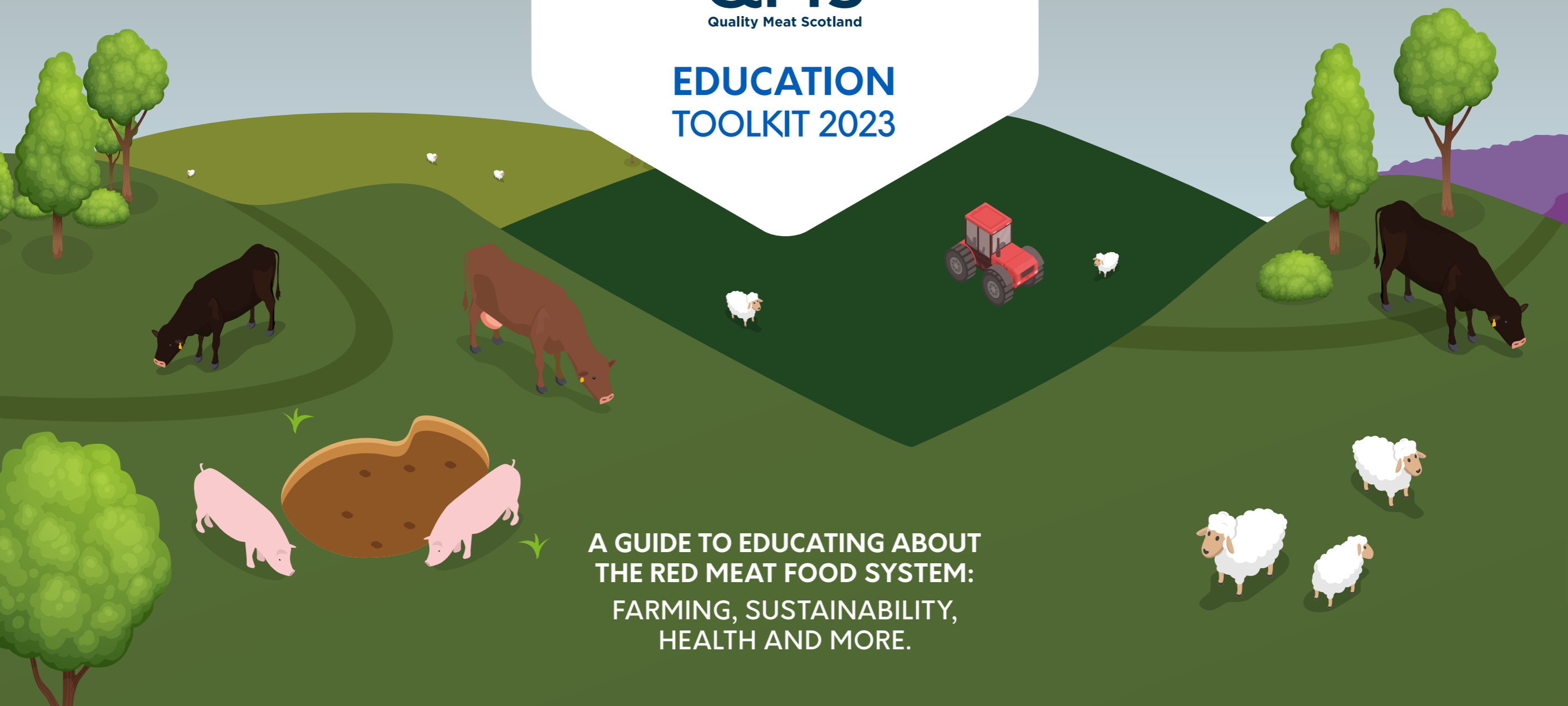




# EDUCATION TOOLKIT 2023



A GUIDE TO EDUCATING ABOUT  
THE RED MEAT FOOD SYSTEM:  
FARMING, SUSTAINABILITY,  
HEALTH AND MORE.

# WELCOME TO THE HEALTH & EDUCATION TOOLKIT



“

The Health & Education Team at Quality Meat Scotland (QMS) has created this toolkit to help the red meat industry educate consumers, school pupils, and higher & further education students about the red meat food system.

We aim to futureproof the red meat industry by working together with schools, colleges and universities as well as with other departments within QMS and external partners. Collaboration is key for our small team.

We use the Make it Scotch Education banner across our school work. This relates our work to the consumer facing site [www.makeitscotch.com](http://www.makeitscotch.com)

We hope you find this education toolkit useful and please don't hesitate to **get in touch** for more information.

Thank you,

**Alix & Jennifer**

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## CONTENTS

- 04. Food Education
- 06. Farming Foodsteps
- 07. Farming
- 08. Traceability
- 09. Animal Health & Welfare
- 10. Sustainability
- 13. The Farming Circle of Life
- 14. Food Production
- 15. Make it Informed
- 16. Careers
- 18. Healthy Diets
- 19. Nutrition
- 20. Cooking
- 22. Meat Voucher Schemes
- 23. Sharing Positive Messages
- 24. Working With Us



## FOOD EDUCATION

### Why do we need to educate pupils about the red meat food system?

Learning where our food comes from is a key element of food education in Scotland.

Understanding Scottish production methods, assurance and traceability is vital to understanding the Scottish red meat food system.

Learning to cook is an important life skill and eating a healthy balanced diet can improve health and wellbeing.

Working with the likes of The Royal Highland Education Trust (RHET), QMS can show children just what/who is involved in livestock farming and red meat production.

## What are the key areas to explore when discussing the red meat food system?

How cattle, sheep and pigs are farmed in Scotland.

Sustainability and Scottish livestock production.

The importance of traceability in red meat production.

Careers throughout the red meat supply chain in Scotland.

Red meat and its role in a healthy, balanced diet.

Choosing, preparing and cooking Scotch red meat.

Follow the Farming Foodsteps key throughout this toolkit.



### FROM FARM

Introduction & Farming  
Cattle, Sheep & Pigs



### TO FIELD

Sustainability &  
The Environment



### TO FOOD PRODUCTION

Food Production, Safety,  
Packaging & Careers



### TO HEALTH

The Role of Red Meat in  
a Healthy, Balanced Diet



### TO FORK

Preparing & Cooking  
Red Meat



EXPLORING THE RED MEAT JOURNEY

**No, that's not a typo, we really do want you to follow our Farming Foodsteps!**

Farming Foodsteps is QMS's interactive, educational resource exploring the journey Scottish red meat makes from farm to fork.

It is split into five lessons each of which has a lesson plan for teachers and a selection of presentations, activities, games, videos, interactive resources, informational links, worksheets and quizzes.

Farming Foodsteps covers the Curriculum for Excellence's learning outcomes in a variety of subjects and has a particular focus on STEM (Science, Technology, Engineering and Maths) subjects, which includes all the food-based courses, as well as environmental science, rural skills and geography.

[VISIT FARMING FOODSTEPS →](#)



Find The Facts is an interactive resource which is a fun way for teachers to analyse pupils' existing knowledge of red meat production.

[PLAY FIND THE FACTS →](#)

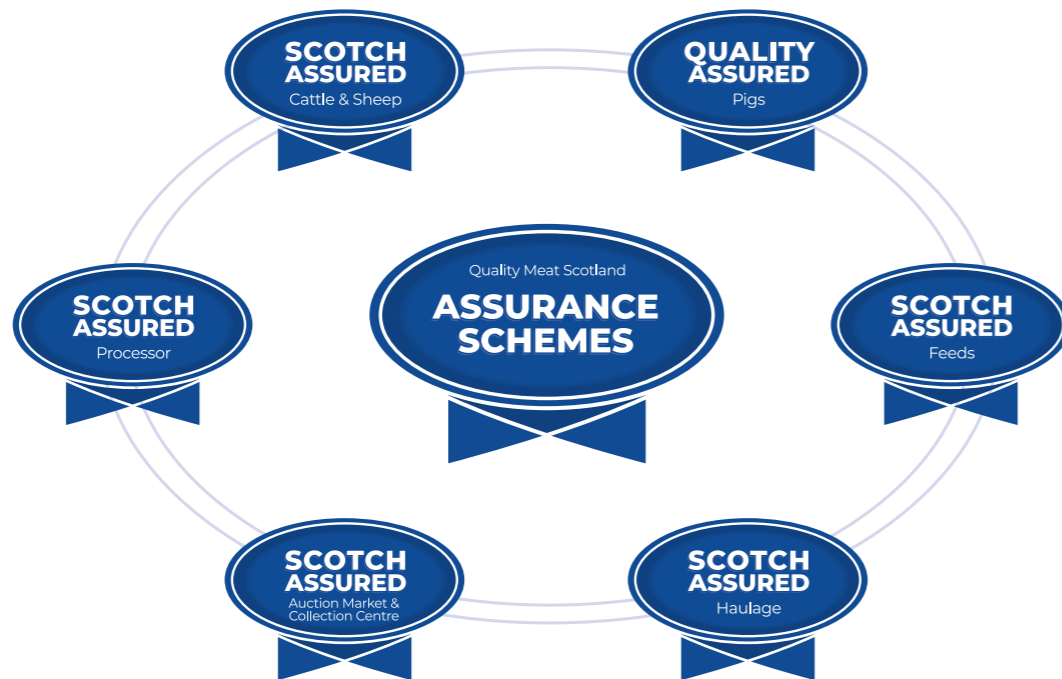
## FARMING

What are the key messages around the farming of cattle, sheep and pigs?

- We've been farming livestock in Scotland for centuries.
- Quality assured livestock farms produce nutrient-rich red meat for us to eat.
- The animals which produce the three main types of red meat in Scotland are cattle, sheep and pigs.
- Both cattle and sheep are ruminants - they have one stomach with four separate compartments. This allows them to get the nutrients they need from grass.

**80%**

Over 80% of Scottish land is grass or rough grazing – not suitable for crops but ideal for livestock.



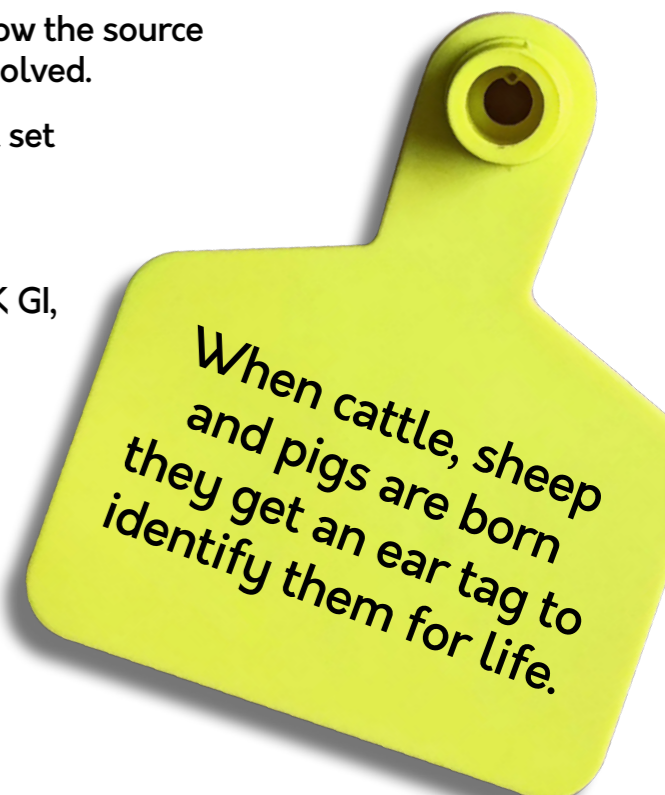
Only meat from animals born, reared and processed in Scotland can display the Scotch Beef UK GI, Scotch Lamb UK GI and Specially Selected Pork logos.



# TRACEABILITY

What are the key messages about traceability in red meat production?

- ➔ Traceability (from farm to fork) is important when considering the safe production of our food.
- ➔ If there is ever a problem with any of the meat produced, traceability measures allow the source to be easily traced and the issue resolved.
- ➔ The assurance standards are a strict set of rules that are applicable at every stage of the supply chain and only when these strict rules are met can the meat be sold as Scotch Lamb UK GI, Scotch Beef UK GI and Specially Selected Pork.







Hill Farmer Martin shares his pride in the environment and animal welfare.



Farming Foodsteps On Farm Video Series: Glenkilrie Farm Episode 2

# ANIMAL HEALTH & WELFARE

What are the key messages when discussing animal health and welfare?

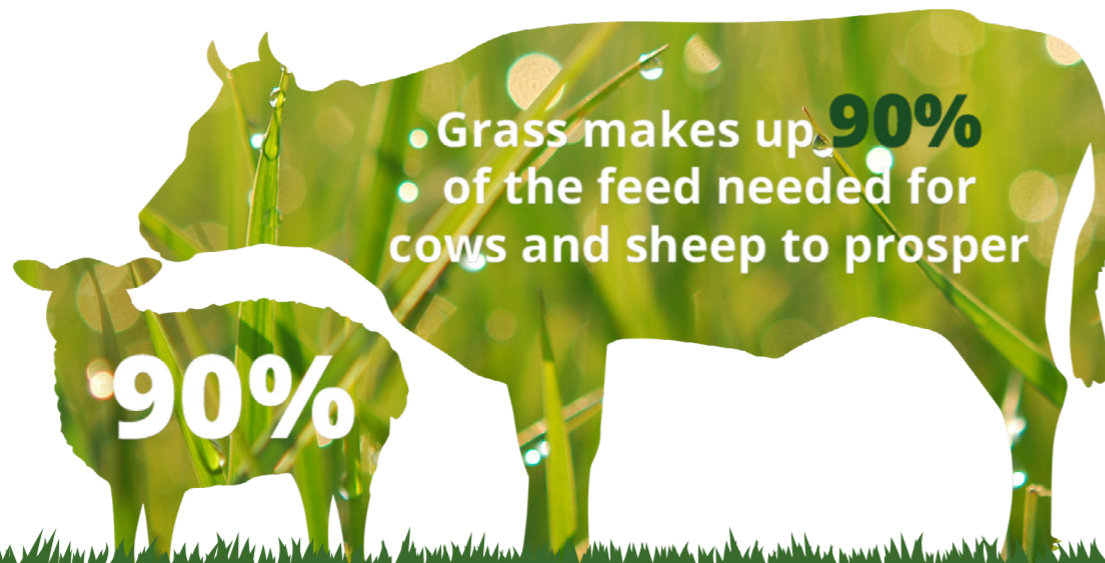
Animal Health and Welfare is a priority in Scottish Livestock Production and the Scottish SPCA supports and approves the QMS Assurance Schemes which have been running for 30 years.

The Scottish SPCA independently inspects farms to ensure these standards are maintained.

QMS recognises the five freedoms of animal welfare as the very minimum principles on which Animal Welfare and Wellbeing should be based.

- |  |   |
|--|---|
| <p><b>1.</b> Freedom from hunger and malnutrition.</p> | <p><b>4.</b> Freedom to express normal behaviour.</p> |
| <p><b>2.</b> Freedom from discomfort.</p>              | <p><b>5.</b> Freedom from fear and distress.</p>      |
| <p><b>3.</b> Freedom from pain, injury or disease.</p> |   |

DO YOU KNOW WHERE THE UK'S GREENHOUSE GAS EMISSIONS COME FROM?



## SUSTAINABILITY

### What are the messages around sustainable livestock production?

- ➔ Red meat produced in Scotland is amongst the most sustainable in the world.
- ➔ More than 80% of land in Scotland is not suitable for growing crops, vegetables or fruit due to the land being too steep, inaccessible or the soil being too thin, but it is suitable for growing grass.
- ➔ Grass is not only the main food of cattle and sheep in Scotland, but it also provides soil stability, reduces flooding, absorbs carbon dioxide and provides an ecosystem to biodiversity above and below the soil.
- ➔ Livestock farming produces three types of Greenhouse Gases (GHG) – namely Carbon Dioxide, Methane and Nitrous Oxide.
- ➔ Methane is emitted from the cattle (mainly through burps) then over a period of around 12 years it is broken down and then reabsorbed back into the grassland by photosynthesis.

[VISIT THE TO FIELD PRESENTATION →](#)

# SUSTAINABILITY

What is the farming industry doing to help?



Taking action to control soil erosion



Protecting peatland and moorland from damage by avoiding ploughing, drainage and over grazing



Cultivating activities to protect farm soils and reduce carbon losses



Managing and preserving existing farm woodlands



Reducing on farm carbon footprint by conducting regular carbon audits



Creating wildlife corridors along water margins, field margins and headlands



Protecting and where necessary restoring wetlands including floodplan management

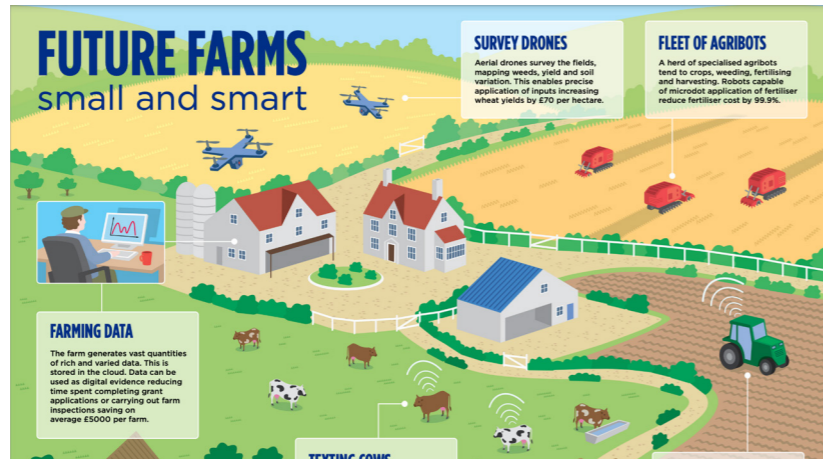


Planting more trees and wild flowers



Ensuring farms are run efficiently – generally, a more efficient farm is a more sustainable farm

# SUSTAINABILITY TEACHING RESOURCES

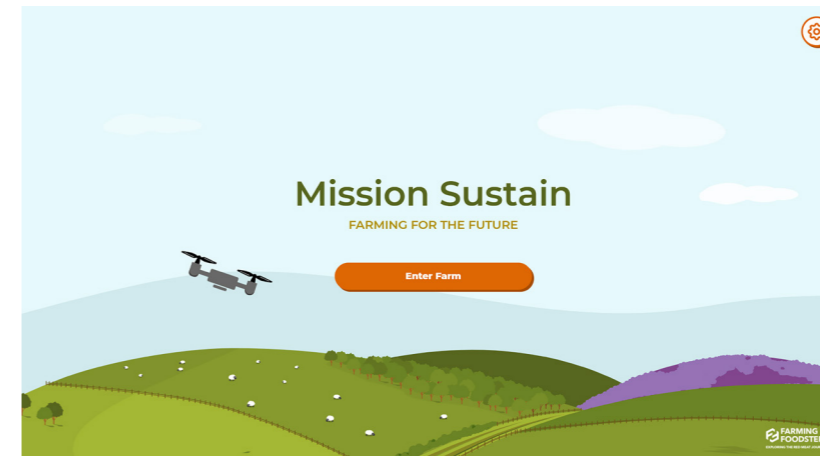


## STEM FOR SUSTAINABILITY

The students of today are the ones who will create the solutions to the challenges of tomorrow. Some of the agricultural technologies are still in the development stage and new ideas are being created and tried out all the time.

Students can get innovative and develop their creative side with this activity.

[FIND THIS ACTIVITY HERE →](#)



## MISSION SUSTAIN

Learning for Sustainability, which is embedded in the curriculum, provides key opportunities to discuss climate change and what Scotland is doing about it. As part of the 'To Field' lesson we have developed Mission Sustain, a game designed to encourage discussion around sustainability in Scottish farming in a way young people can enjoy and relate to.

This interactive resource can be used by teachers in the classroom or by pupils on their own. The pupil is put in the shoes of a livestock farmer and faced with decisions and challenges that will impact their farm's environmental, social and economic sustainability.

[PLAY MISSION SUSTAIN →](#)

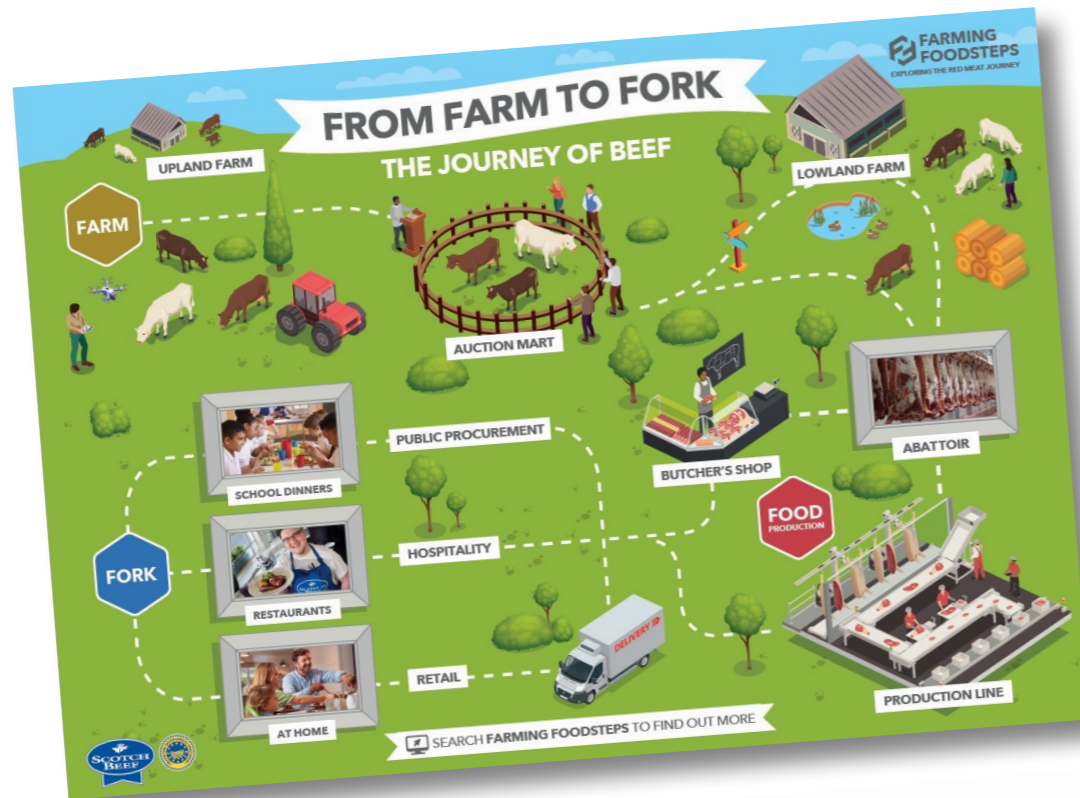
# THE FARMING CIRCLE OF LIFE

Scottish quality assured livestock farms not only produce nutrient-rich red meat for us to eat, the farmers and their animals are also involved in a range of interconnected natural cycles and ecosystems which benefit us all.

The Farming Circle of Life video has been created to highlight how this complex web of interlinked and natural ecosystems work together to produce Scotch Lamb UK GI, Scotch Beef UK GI & Specially Selected Pork.

[VIEW FILM →](#)





Printed versions of the Journey of Beef Poster are available on request and can be used in combination with the information sheet to help pupils visualise the farm to fork journey.

[VIEW HERE →](#)

## FOOD PRODUCTION

What are the key messages when discussing red meat food production?

- To produce meat, cattle, pigs and sheep must be slaughtered, but every effort is made to ensure that the operation is as humane as possible - this includes rendering the animal unconscious immediately prior to slaughter.
- This happens in modern Quality Assured abattoirs where the conditions are strictly supervised, and a vet is always in attendance.
- All aspects of the red meat food chain must adhere to strict food safety regulations – there are several regulations which are specific to animal-based products.
- Food safety is a key priority at every stage of the red meat food journey – from farm to fork and is a key part of Quality Meat Scotland's assurance schemes.
- By law there are certain pieces of information which must be included in meat packaging by learning to decipher labels you will be able to make informed choices.

# MAKE IT INFORMED

When you purchase red meat, you're making decisions about taste, price, sustainability, nutrition, health and lifestyle – often without much thought and in a short timeframe. The Make it Informed resource empowers people to make informed decisions about the meat they eat.

TRY MAKE IT INFORMED →

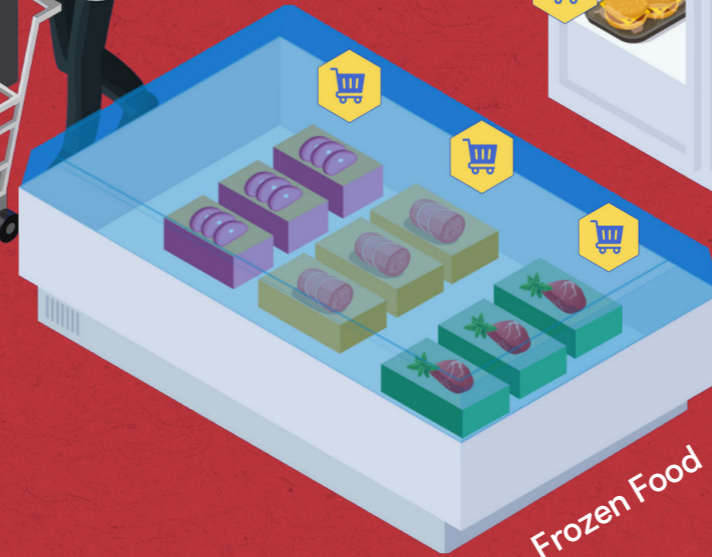
An interactive way to learn about labelling and what meat logos mean



Butcher's Counter



Chilled Ready-Meals



Frozen Food

What do these logos mean to you?





**FIND OUT ABOUT RED MEAT CAREERS →**

# 50,000

The red meat industry supports 50,000 jobs in Scotland.

# £2bn

The red meat is worth £2bn to the Scottish Economy.

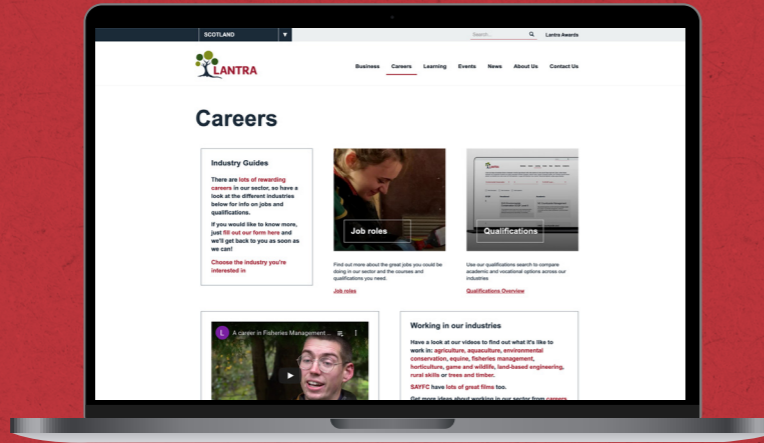
## CAREERS

**What careers are there throughout the red meat supply chain in Scotland?**

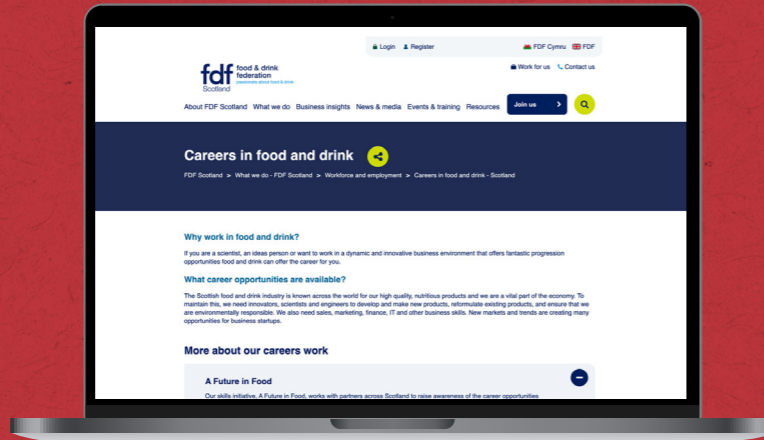
- Advancements in technology both on farm and in food production mean STEM subjects are critical to the future workforce.
- Helping pupils understand the wide range of careers across the whole chain is pivotal to ensuring the industry is forward moving and filling the gaps.
- QMS works with Developing the Young Workforce (DYW) to ensure careers within the red meat industry, from farming to butchery, are highlighted to young people.
- The Butchery Careers site is a result of joint working with Skills Development Scotland, spotlighting apprenticeships in the vital part of the industry.







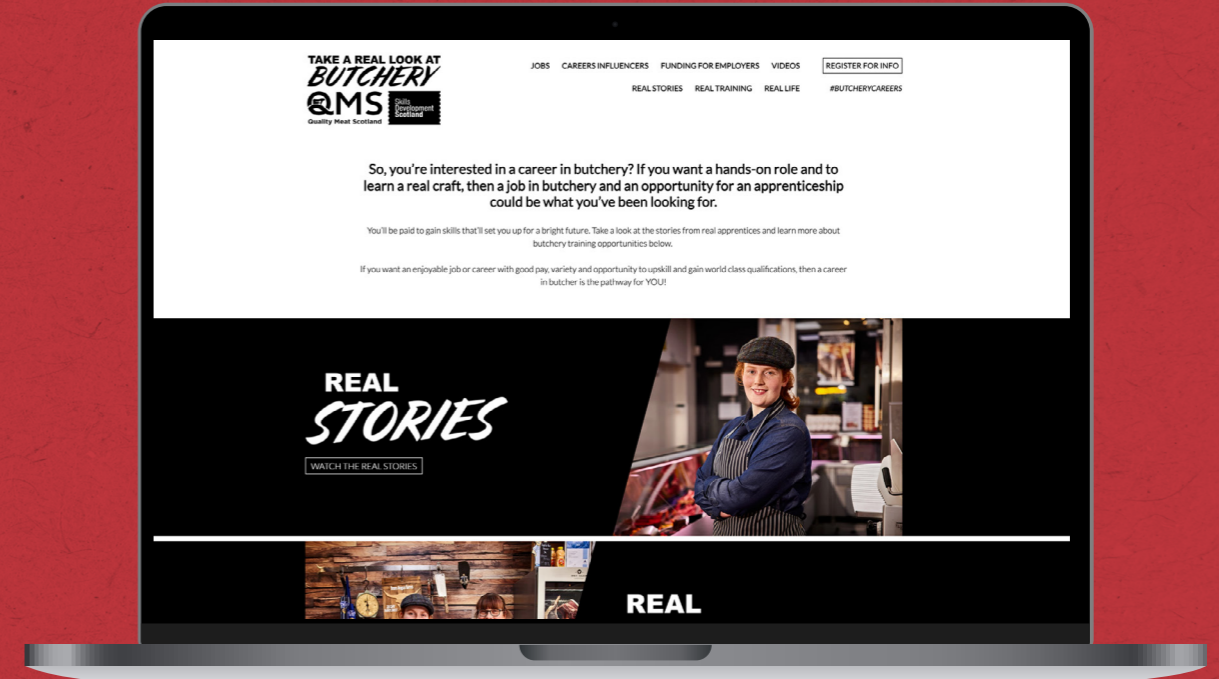
## LAND BASED CAREERS



## FOOD & DRINK PROCESSING CAREERS

# CAREERS

The links below are useful signposts for anyone wanting to find out more about careers within the red meat food system.



## BUTCHERY & PROCESSING CAREERS



Pupils can learn more about the nutrients in red meat by playing Make it a Match.

**PLAY MAKE IT A MATCH →**

# HEALTHY DIETS

## What are the key messages when discussing red meat and a healthy, balanced diet?

- ➔ The UK dietary guidelines are based on the Eatwell Guide. This allows for up to 70g cooked red meat per person, per day. The majority of the population do eat within this recommended amount.
- ➔ Only 0.1% of the UK population follow all 9 of the Eatwell Guide recommendations.
- ➔ If we did follow the recommendations, we would be a healthier nation and we could achieve a 30% reduction in dietary GHGs.
- ➔ Red meat is naturally low in salt and a rich source of protein and minerals such as iron and zinc.

### MEAT IN THE MIDDLE

Combining meat dishes with other proteins and plenty of vegetables is a great way to make meals go further and increase the nutrient profile of each dish. Let's meat in the middle!



## Red Meat Nutrition

KEY FACTS

		BEEF	LAMB	PORK
A source of riboflavin (B2)	Helps you to fight fatigue and aids growth			
A rich source of niacin (B3)	Helps our repair process and converts food into energy			
A rich source of vitamin B6	Vital for our immune system, nervous system and how we regulate blood sugar levels			
A rich source of vitamin B12	A building block of red blood cells and helps us fight fatigue			
A rich source of zinc	Important for healing and is needed in our sense of smell and taste			
A source of iron	Helps form healthy red blood cells, key for us to transport oxygen around our bodies			
A source of phosphorus	Contributes to healthy bones and teeth. It works with B-Vitamins for growth, maintenance and repair of our bodies			
A source of potassium	Aids the normal functioning of our nervous system			

Red meat is naturally rich in protein, low in salt and provides us with vitamins and minerals that contribute towards good health and wellbeing.  
RECOMMENDED WEEKLY ALLOWANCE: 500G (COOKED WEIGHT) PER WEEK.

For more info visit [www.qmscotland.co.uk](http://www.qmscotland.co.uk)

A 'source of' or 'rich source of' are approved health claims under the EU health claim regulation (Regulation (EC) No 1924/2006).

If you want to find out more about the nutrients in each of the red meats visit the Red Meat Nutrition Key Facts document.

CLICK HERE →

## INFORMED FOOD CHOICES

What are the key messages when discussing red meat and nutrition?

- ➔ Iron from red meat helps form healthy red blood cells.
- ➔ Combining animal sources of iron with plant based sources of Vitamin C helps us absorb iron more easily.
- ➔ Red meat is also a rich source of vitamins including Vitamin B12 which helps us to combat tiredness and fatigue.
- ➔ Advancements in breeding, and modern butchery techniques have reduced the amount of fat in red meat.

### EVERYONE CAN EAT MORE SUSTAINABLY BY FOLLOWING THREE STEPS:

1. Eat food that is produced locally and is in season.
2. Reduce your food waste.
3. Know your labels so you can make informed choices.

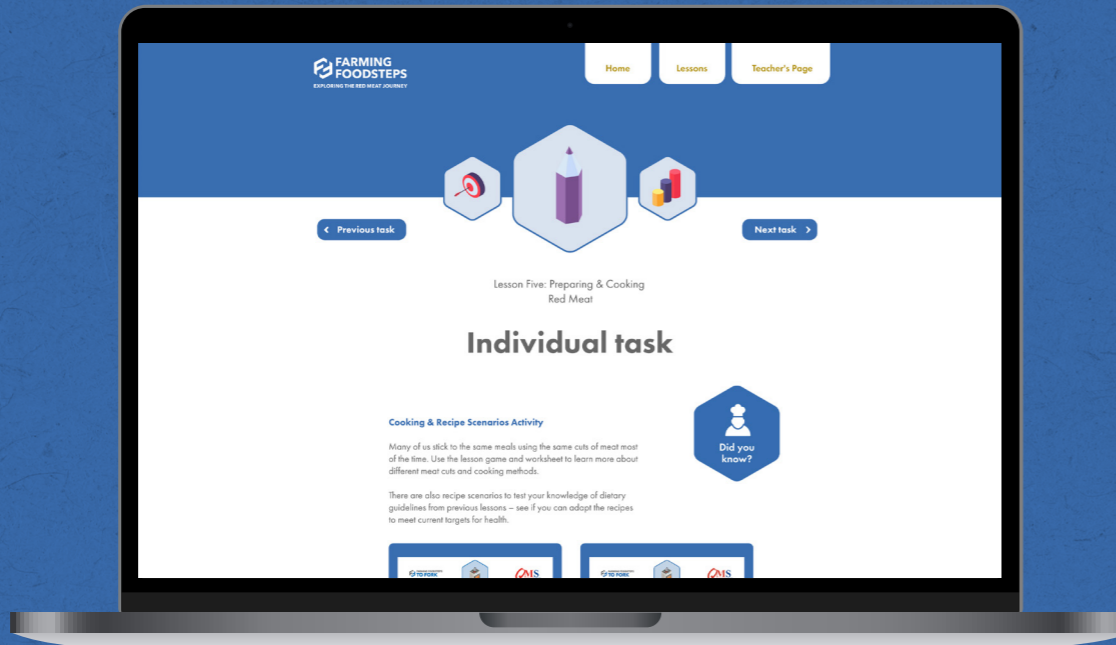
# COOKING

What are the key messages when discussing cooking with red meat in Schools?

QMS has offered education sessions and cookery demonstrations in schools for several years, and this continues to be very popular.

The Farming Foodsteps “To Fork” lesson comprises of information based around the components of red meat, the science involved in cooking meat, theoretical cooking and recipe scenarios looking at dietary guidelines, as well as plenty of class period length recipes and videos.

QMS encourages links between schools and local Scotch Butchers, who are full of knowledge regarding different cuts, cooking requirements and recipes.



Seasonal food, recipes and cooking activities

[CLICK HERE →](#)

*Can you help?*

If you'd like to work with us and potentially be one of our Demonstrators, please get in touch.



## COOKING

Learning to cook is undeniably a life skill that should be available to everyone. The ways we are learning to cook today are changing too – with lots of easy-to-follow videos available now. Here's three for starters, but there are many more to discover via the links below:

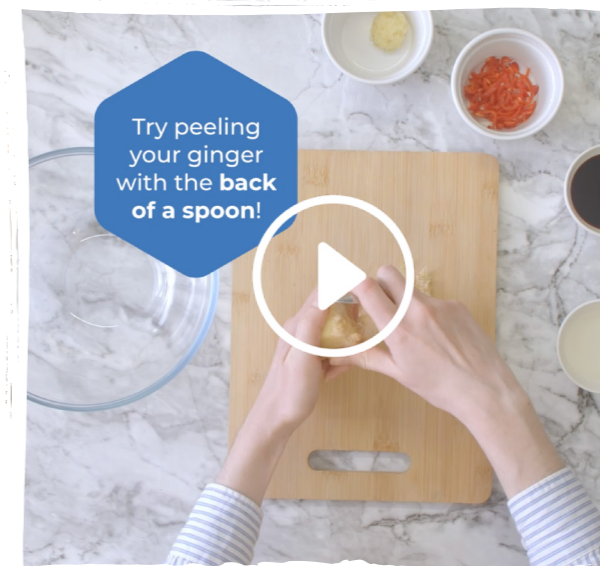
Look out for  
the skills  
highlights in  
the videos



**SCOTCH BEEF MARGARITA  
MEATBALL ORZO RECIPE**



**SPECIALLY SELECTED PORK  
SAUSAGE PIZZA TART RECIPE**



**INDONESIAN CHILLI  
SCOTCH LAMB NOODLES RECIPE**

For more recipe videos visit  
the Videos & Links page

**CLICK HERE** →



For more information:

[CLICK HERE →](#)

## MEAT VOUCHER SCHEMES

What assistance can QMS offer in Schools and communities throughout Scotland?

The QMS School Meat Voucher Scheme is an industry initiative to help combat the obesity epidemic sweeping Scotland by helping teach secondary age children how to cook quality, nutritious meals.

The scheme provides the home economics departments of secondary schools in Scotland with a voucher worth up to £180. This is to spend on fresh red meat from a local butcher shop and for use by students in home economics and hospitality courses only.

### SUPPORT FOR COMMUNITY GROUPS

QMS are pleased to be able to support Community Cooking Groups by means of our Community Cooking Fund. Assistance is available to allow groups to cook with red meat purchased from their local butcher shop.

We also have the “Quick & Easy” recipe book which includes a selection of simple, versatile, lower cost recipes and information about the benefits of eating red meat as part of a healthy balanced diet.

## SHARING POSITIVE MESSAGES

How can we help you have positive conversations about red meat?

As well as the resources within Farming Foodsteps there are downloadable and printed resources available to help you get key messages across.

**The Tasty Little Guide** - packed with informative facts and tasty recipes can be used to educate school pupils, parents and consumers alike.

QMS also produce '**Having Positive Conversation Toolkits**' that are available on the QMS website.

To find out about ordering printed copies of The Tasty Little Guide contact us.



# WORKING WITH US

## What can we do to help you and how can you help us?

We offer teacher training and Career Long Professional Learning (CLPL) opportunities to educate the educators and provide teaching resources focusing on Food, STEM, Health & Sustainability.

If you are a teacher, educator or community group covering the red meat food system and you require support or more information, please contact us.

**SIGN UP TO RECEIVE NEWSLETTERS FROM THE QMS HEALTH & EDUCATION TEAM** →

You can help by sharing Farming Foodsteps  
[www.farmingfoodsteps.co.uk](http://www.farmingfoodsteps.co.uk)

For general Food, Farming & Countryside Education resources & volunteering opportunities visit The Royal Highland Education Trust  
[www.rhet.org.uk](http://www.rhet.org.uk)

And of course, you can always get in touch at  
[education@qmscotland.co.uk](mailto:education@qmscotland.co.uk)

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