

EASTER BUSH SCIENCE OUTREACH CENTRE

Get hands-on
with real-life
science

EpiFarm Teacher's Information

Learning level	P5-7 & S1-3	
Research themes	Epidemiology & infectious diseases The scientific method	Food security Computer modelling
Duration	Primary – 50min; Secondary – double lesson	

EpiFarm overview:

EpiFarm provides a researcher-led introduction to the world of epidemiology (the study of patterns and causes of disease in the population at large) and food security through an animated game hosted on the Scratch platform. Pupils will play the part of an expert epidemiologist called in by a panicked farmer to analyse the spread of an epidemic among the hens on their farm. The class will be introduced to these concepts through examples of real-life science performed at The Roslin Institute, University of Edinburgh and will be supported by an active research scientist. Pupils will require access to a computer, but can work in pairs or triplets.

Learning objectives:

P5-P7

- To understand that microorganisms can cause disease
- To describe how infectious and disease causing microorganisms can spread through a population
- To use the scientific method to investigate the spread of disease
- To understand the impact of disease on our food security

S1-3

- To understand how host factors can influence the spread of disease
- To understand how computer modelling can be used to comprehend disease spread
- To use the scientific method to investigate the spread of disease through a population
- To understand the impact of disease on our food security and explore strategies for disease prevention

Curriculum links

Primary

Planet Earth Biodiversity and interdependence	Biological systems Body systems and cells	Topical science
I can identify and classify examples of living things, past and present, to help me appreciate their diversity. SCN 2-01a	By investigating some body systems and potential problems which they may develop, I can make informed decisions to help me to maintain my health and wellbeing. SCN 2-12a	Through research and discussion I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this had made on society. SCN 2-20a I can report and comment on current scientific news items to develop my knowledge and understanding of topical science. SCN 2-20b

Secondary

Biological systems Body systems and cells	Topical science
I have explored the role of technology in monitoring health and improving the quality of life. SCN 3-12b I have contributed to investigations into the different types of microorganisms and can explain how their growth can be controlled. SCN 3-13b	I have explored how the body defends itself against disease and can describe how vaccines can provide protection. SCN 3-13c I have collaborated with others to find the present information on how scientists from Scotland and beyond have contributed to innovative research and development. SCN 3-20a

Developing the Young Workforce 'I can' statements

- I can discuss the relevance of skills to the wider world and make connections between skills and the world of work.
- I can explain to others my ambitions/what I would like to do and look for ways to achieve them/that.
- I can recognise the skills I have and need for work.
- I can identify my interests, strengths and skills and use them to make informed choices.
- I can choose a blend of subjects, courses and experiences to enable my career pathways.