Looking ahead towards 2023-2024

As the sunshine breaks through the clouds, we are already generating lots of excitement towards the Engineering Educates Farmvention Challenge September 2023 launch!

Map the pathways into your planning for next academic year. Embrace cross-curricular opportunities to apply maths, science, D&T and computer science whilst enhancing pupils' awareness of careers in the agriculture engineering and farming industries.

Visit the CPD Hub for information on each pathway

Maths - stepping into the campaign begins with a closer look at the UK. Using tables and graphs to find out more about locations and types of farming. Broaden your pupils' awareness of the farming landscape, develop questions to further understanding about where, why and how farmers work different types of land for different purposes. Using and applying maths in context offers you a prime opportunity to recognise the areas of strength and development for your pupils.

"Primary 3 have been using and developing their problem solving, measuring, teamwork and creativity skills."

"Teamwork, Creativity, Problem Solving, Collaborative Thinking, Planning, Discussion, Communication, Positive Thinking. Respecting each others ideas" were all skills our pupils have experienced in Engineering Educates Farmvention Challenge!

Science - each pathway integrates opportunities to work scientifically in context. Develop pupils' disciplinary and substantive knowledge in a meaningful way. Pupils ask scientific questions and gather data that they interpret to draw conclusions. All 3 pathways enable the pupils to use comparative testing, pattern seeking and conclusion building.

"My favourite things was we were successful in growing crops."

"My really enjoyed carrying out the soil compaction experiment."

Gordon Primary School

Design & Technology - the whole campaign is designed around the Engineering Design Process.
Using basic equipment and fixing techniques that apply the use of levers and pulleys, your pupils can improve their skills and benefit from hands-on practical learning.

"I liked building the seed drills. I liked the way mine looked!"

"I liked building the cow barns and working out the architecture!"

Hawthornden Primary School

Computer Science - using plugged and unplugged programming, explore how to automate innovations related to dairy, arable and sustainable farming.

Whether you have micro:bits to hand, or simply use the app, your pupils can experience the importance of how robots and automation have transformed the farming industry.

"I really liked the building robots and the soil experiment because so many people had different ideas!" Hannah

"I liked building a robot that could plant seeds and then sharing it with my class." Josh

Ratho Primary School

7-9 years CURRICULUM LINKS

9-11 years CURRICULUM LINKS

11-14 years CURRICULUM LINKS

With the support of SSERC the resources have also been mapped the resources against the Curriculum for Excellence.

Engineering Connections

Working with our partners, the NFU, we'll be bringing you a new set of **virtual live lessons with farmers and agricultural engineers.** Many are already archived for ongoing use right now, so that pupils can hear directly from engineers and farmers working on contemporary farms and in agricultural industry.
Perfect for meeting your **Gatsby benchmarks** and **addressing gender bias** in the world of engineering.

Revisit Live lessons here

What is the Engineering Design Process? (Video)

Blog: Young engineers and the Engineering Design Process

Building on SEERIH's research with the Royal Academy of Engineering, learners were led through a series of tasks to bring the **Engineering Design Process** and **Engineering Habits of Mind** to life in the context of the **National Curriculum**.

The **Engineering Masterclass** was described as **"the best day ever"** from one of the learners that took part. Read more in the link below.

Read the blog here