Connecting the school kitchen with the classroom

Jennie Devine

NFU Education Manager

What is Farming STEMterprise?

Farming STEMterprise is a range of *award-winning* Practical STEM projects for Years 1-6 that deliver national curriculum objectives through the real life context of setting up a farm shop business and designing, developing, making and marketing a brand new food product.

Farming STEMterprise:

- ✓ Improves understanding of **nutrition and food provenance**
- ✓ Provides opportunities to **build relationships between the kitchen and the classroom**.
- ✓ Increases **engagement in Maths** through meaningful, real life tasks.
- ✓ Embeds **financial literacy** into curriculum teaching.
- ✓ Introduces **business concepts** to children
- ✓ Provides opportunities for **team-work, problem-solving and public speaking** development.

Year 5 Project Overview:

Children work in groups to set up a farm shop business and design, make and market a new lunchtime food product.

Stage 1: Exploring seeds

- Discuss plant lifecycles and seasonality
- Explore seeds and problem solve to decide which crop to grow
- Introduce marketing
- Create a brand

Stage 2: Plant reproduction

Science lesson on sexual reproduction in plants

Stage 3: Growing ingredients from seeds

- Plant seeds
- Maths opportunities when measuring water, measuring plant height, plotting & reading a line graph, converting between mm & cm

Stage 4: Growing ingredients without seeds

- Science lesson on asexual reproduction in plants
- Grow vegetables from cuttings
- Think critically about sexual v asexual reproduction in plants

Stage 5: Designing a healthy recipe

- Discuss healthy eating & nutritional requirements of target market
- Design healthy recipes to appeal to target market

Stage 6: Conducting market research

- Maths lesson on survey design, drawing bar charts and pie charts

Stage 7: Budgeting

- Shop for ingredients
- Work within a budget
- Maths lessons on calculating with money
- Maths lessons on applying calculation methods to multi-step problems
- Problem solve to adapt ideas

Stage 8: Calculating expected profit

- Maths lessons on calculating with money
- Maths lessons on applying calculation methods to multi-step problems

Stage 9: Making a food product

- Food technology lessons on food preparation
- Maths opportunities when reading scales, measuring accurately, scaling up recipes, calculating with fractions

Stage 10: Marketing a food product

- Plan a fair test
- Investigate effectiveness of packaging materials
- Discuss responsible packaging
- Design packaging
- Make an example of eco-friendly packaging
- Write & perform advertisements

FARMING STEMterprise

Year 2 Project Overview:

The children work in groups to complete a range of cross-curricular tasks in order to grow their own ingredients, develop their own food flag pizza products, set up a pizzeria business and practise using money in a real life context.

Stage 1: What do all living things need?

- Science lesson on the needs of living things
- Choose a business name and design a logo for a pizzeria that uses all British ingredients

Stage 2: Can we grow our own pizza ingredients?

- Science lesson on plants' needs and where pizza ingredients come from
- Grow pizza ingredients from seeds
- The great ingredient race: observe ingredients growing to answer the question: which ingredient grows the fastest?

Stage 3: Conducting market research

- Maths lesson on drawing tally charts to collect market research data
- Maths lesson on drawing pictograms to show results

Stage 4: Designing a healthy recipe

- Lesson on healthy eating and balanced diets
- Design a pizza and write a shopping list of all the ingredients involved
- Add up the cost of chosen pizza ingredients by adding two numbers at a time

Stage 5: Making a healthy pizza

- Lessons on making dough and cutting ingredients
- Estimate and accurately weigh ingredients
- Make food flag pizzas
- Maths lesson on fractions
- Evaluate final product against design

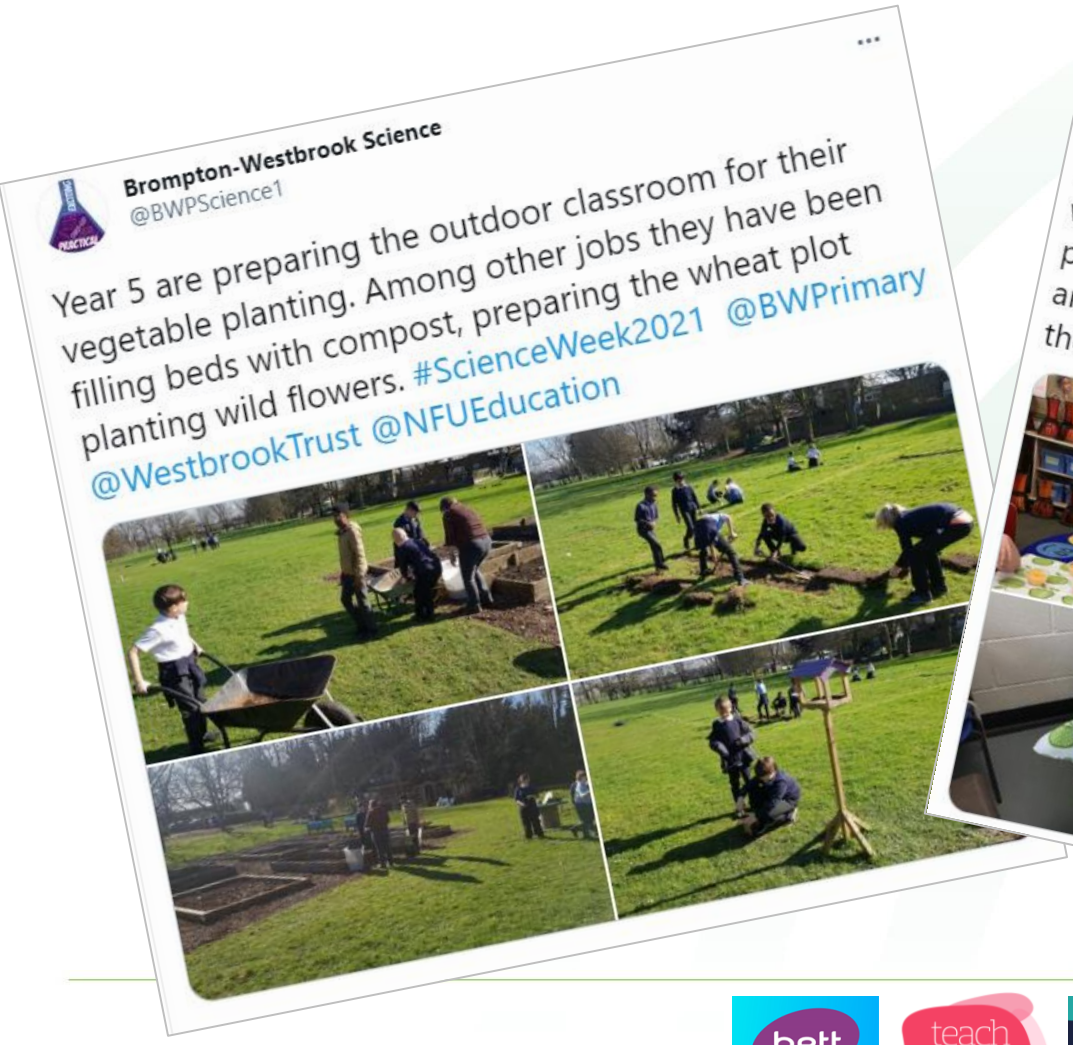
Stage 6: Advertising a pizzeria

- Lesson on persuasive writing
- Design adverts for pizzeria and decide on selling prices
- Design and make eco-friendly packaging for the pizzeria's takeaway service

Stage 7: Selling healthy pizzas

- Open restaurants and practise paying each other with play money
- Practise giving change
- Investigate combinations of coin that can be used to pay for pizzas

STEMterprise in action



www.nfueducation.com

STEMterprise feedback

"This resource will make a valuable contribution to the primary school and provide teachers with ideas and materials to support pupil learning across a number of curricular areas. The farming and business context breathe life into the content. Learning about and for everyday life is the cornerstone for this collection, which pupils and teachers alike should find engaging, rewarding and enjoyable."

Association for Science Education

"It is clear that Farming STEMterprise goes above and beyond any scheme of work; it embodies the ethos of STEM teaching and learning amazingly."

West Midlands STEM Ambassador Hub

"This is a really fun, original and engaging resource that is certainly cross-curricular and can be extended into other subjects like geography and literacy. The resource would be well worth paying for but it is generously provided for free. It could really invigorate and breathe life into a school's curriculum. A cross-curricular gem."

Teach Primary STEM award judges

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- Schools could run STEMterprise in each year group. Catering staff could be involved through supporting the practical food preparation sessions or being interviewed by the children as part of their market research.
- A winning team could be chosen from each year group and then an overall winning team could be selected to have their food product added to the menu produced by the catering team.
- NFU Education could provide free STEMterprise training for teachers and catering staff.
- Members of the wider school community could be invited in to buy the food products made by the children and the money raised could be used to fund an allotment or growing area that could be used for future projects.

Any questions?

If you think of one later, drop me an email:
jennie.devine@nfu.org.uk