



# 10 Challenges

FOOD, FARMING, THE LOCAL COMMUNITY, THE ENVIRONMENT AND SUSTAINABILITY



The ten challenges overleaf have been designed to link food, farming, the local community, the environment and sustainability to the National Curriculum and we hope that you will enjoy embedding the challenge projects into your learning.

- Potential to simplify for Early Years and SEN
- A longer project involving planting/growing
- A quicker project

All challenges can be extended or simplified, get in touch for support



The challenges are student-led and encourage them to research, explore and take ownership of their learning, presenting their findings at the Lincolnshire Show. Each participating school is matched with an ambassador to support with the project and be an experienced sounding board through the challenge project journey.

Guidance is provided every step of the way with a planned Launch Event and Twilight Support Sessions. Schools attend the Lincolnshire Show to present their work and showcase their understanding. By engaging with the public and presenting to a panel of judges, students build their self-confidence, develop their skills, and cement their knowledge. The competition comes to an exciting conclusion as schools compete to become the Schools' Challenge Champion.



## Key dates

- Schools' Challenge Launch Event Wednesday 31st January 2024
- Twilight Support Session 1 Wednesday 6th March 2024
- Twilight Support Session 2 Tuesday 23rd April 2024
- Twilight Support Session 3 Tuesday 14th May 2024
- Twilight Support Session 4 Wednesday 5th June 2024
- The Lincolnshire Show Wednesday 19th - Thursday 20th June 2024

## Form deadlines checklist

- Expression of Interest Friday 22nd March 2024
- Ticket Application Form Friday 3rd May 2024
- Insurance Form Friday 3rd May 2024
- Photo Permission Form Friday 3rd May 2024
- Challenge Summary Friday 24th May 2024

## Contact

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## Welcome TO THIS YEAR'S SCHOOLS' CHALLENGE ORGANISED BY THE LINCOLNSHIRE AGRICULTURAL SOCIETY

Would you like to involve your School in the Schools' Challenge competition at the Lincolnshire Show? It's a fabulous and fun opportunity to learn more about food, farming, the local community, the environment and sustainability.

With ten challenges to choose from all with a focus on inspiring young people to gain a better understanding of Lincolnshire's rich agricultural history, its horticulture and land-based activities, whilst putting learning into context, the competition is one not to be missed!

The challenge competition is open to all Early Years, Primary, Secondary, Special and Independent Schools in Greater Lincolnshire and surrounding areas. We also welcome external clubs, groups, and associations.

## GETTING STARTED

Please choose from the range of challenges and complete and return the expression of interest form. You will then be sent guidance notes to support your students through their chosen challenge, ready to compete for the Schools' Challenge Champion at the Lincolnshire Show 2024.



## Challenge 01 GROWING RESILIENCE

Students are tasked with creating a way of improving wellbeing amongst their school and local community, developing new skills within horticulture and agriculture.

Students can develop a piece of land/area to utilise for gardening and growing to bring about positive change. Engagement in gardening activities has shown to promote social relationships, emotional and mental wellbeing, moderate stress, reduce depression and anxiety, and improve cognitive and educational outcomes. Your challenge is to get growing – through either allotments, raised beds, fruit plots, herb gardens, woodland gardens, farm gardens, micro gardens, vertical gardens, tranquillity gardens, wildlife gardens, sensory gardens and so much more, the choice is yours!

Can you evoke the senses through the types of planting to boost mood and calm the mind or even think about foods for health benefits? Children should learn about how important mental health and wellbeing is and how to apply their knowledge to the task, thinking about practical ways wellbeing can be improved. Students should show evidence of research and record their journey. Could you measurably increase happiness by using and demonstrating newfound horticultural skills? How about sharing your learning and product of growth with a takeaway pack filled with calm to share with friends, family, and community? Can you open a school farmers market, extending knowledge of healthy eating through the products you've grown?

## Challenge 02 NATURE NURTURE

Can you create your very own 'nature reserve' - a protected area for flora and fauna? Students are to develop an area to attract new wildlife and improve habitats and micro-habitats within the school grounds or local community? The importance of a balanced ecosystem is essential for life, students should research and implement a plan of action to maintain life and increase biodiversity? Could you even attract a rare and endangered species. Students should research habitats and environments with a view to recreating a shelter or sanctuary for wildlife and developing the natural features within that space. A diary or record of the Challenge journey should be produced using a media of the students' choice, documenting signs of life and species identified. Learning could include living processes, life cycles, classifications, conservation, observations, and data collections.

## Challenge 03 ART FROM THE HEART

The Lincolnshire Agricultural Society is a charitable organisation, home to the Lincolnshire Showground. We are truly passionate about promoting and supporting education, food, farming and the countryside within Lincolnshire, being one of the largest agricultural counties in the UK. Your challenge is to showcase The LAS by creating a piece of artwork made from a majority of recycled or reclaimed materials. The Lincolnshire Agricultural Society is committed to maintaining a sustainable future and would like to install the winning artwork within the grounds, so it's important that your artwork is impactful, free standing and weatherproof where possible. The art should incorporate the Lincolnshire Agricultural Society ethos and represent the Society in some way. The Challenge should show research techniques, new skills and knowledge and understanding of the recycling and reclamation procedures. Students must document the planning, design and prototype stages. To extend the challenge, how about using computer aided design, include a mechanical element with gears or pulleys or new techniques in line with the curriculum?

Students are tasked with developing a campaign to promote recycling in the school, families and wider community, along with an action plan of how to improve current practices and change mindsets.

## Challenge 04 ROOTS AND HOOVES

Showcasing the legacies of Lincolnshire!

Students are to recognise our great county of Lincolnshire by researching and interacting with members of the community involved in the heritage of native Lincolnshire foods and animals. From the Lincolnshire sausage to the Lincoln Longwool, can you base a project around one (or more) Lincolnshire assets?

With the Lincolnshire Show in mind, students should research and plan a marketing campaign to enlighten visitors to the show, the county and wider; showcasing what is great about Lincolnshire. The platform for scope is huge and students must get creative through different forms of promotional media. From developing social media channels, radio jingles, press releases, promotional adverts, design of sales or informational websites. Credit will be given for the diverse research methods and media opportunities explored.

How about extending your research beyond the produce, a look at the journey your chosen asset takes – what careers, skills and manufacturing are involved to produce the final product. Why not look at livestock from farm to competition at The Lincolnshire Show, or come up with a new twist on a Lincolnshire food product designing a stand at The Lincolnshire Show?

## Challenge 05 SOIL SCIENCE!

Lincolnshire is known as the breadbasket of England with soil renowned for its fantastic growing properties, providing a fertile base for many crops. Students must take on the role of an agronomist (crop doctor!), concerning themselves with the health and wellbeing of crops. Students must devise a fair test looking at different types of soils to grow crops under different soil conditions. Students must set their own parameters of a scientific test to work out the best growing conditions and the different factors that can affect them. Students must accurately gather, record and present their data to draw conclusions to what the best variables are to improve the health of the crops. Research into soil nutrition, the role of an agronomist and advancements in farming can all be explored as part of the project.

Can you identify which parts of Lincolnshire are ideal for certain crops and evaluate why this is?

Farmers carefully align their quest for ideal growing conditions with the balance of looking after the environment and working towards being carbon neutral. Using what you've learnt about healthy soils can you design the perfect field or come up with an innovation that can help farmers grow healthy crops as well as look after the environment and think about carbon stores?

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## Challenge 06 THE POWER OF WATER

Water is a fascinating topic and central to life. Without water our crops cannot grow and we need it to survive, but when we have too much of it during a flood, the impact can be devastating. Communities in parts of Lincolnshire are all too familiar with the risks of flooding damaging homes, farmland, and businesses, as well as disrupting transport and utilities. ADA, the association for flood and water management authorities, invites you to research, plan, and make a model village or landscape that must include a watercourse. It should show the different ways that water can be managed to prevent or reduce flooding and alleviate drought. Through your research and investigation, you should consider man-made and natural changes that are used to store, convey, and control water for agriculture and communities while improving conservation and protecting habitats. These should be represented in your model.

## Challenge 07 BEE-UTIFUL GARDENS

Loss of habitat is one of the most pressing problems facing British bees. However, farmers and communities are trying hard to increase environmental measures to counterbalance these issues. Many farmers are committed to taking up measures to encourage pollinators and increase the number and diversity of insects which in turn can improve crop productivity.

Rockscape, a local company delivering innovative renewable energy and sustainable agricultural solutions have set a challenge in line with their environmental strategy and are forward thinking in supporting the environment.

Your challenge is to plan, design and create a miniature show garden with bees and wildlife in mind. Rockscape plan to develop a 1-acre space of rural land currently with natural woodland and grass. Your challenge is to plan ideas of what you would like to see in this area including bees, a pond and wildflowers. Your show garden will reflect your design ideas and be developed and grown within school. Students must create a development journal along the way – documenting the stages of research and design. The garden will then be planted at the Lincolnshire Show in our uniform raised beds. Credit will be given to those gardens who support wildlife and the development of bees in our communities. This gives the chance to be innovative and imaginative in creating suitable planting schemes for a nectar cafe, habitats made from natural/renewable materials and drinking sources/miniature ponds. Students must demonstrate their research and learning alongside the garden, providing evidence to support the reasoning of their design. Research could involve living processes, conservation, observations, data collection and even design and technology. Why not extend your learning to the local community inviting individuals and businesses to help spread the word on bees and extend our pollinator pathways.

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## Challenge 08 LINCOLNSHIRE ROOTS

Fresh produce suppliers, Branston Ltd invite your "school company" to develop a range of fresh produce products under their "new brand" – Lincolnshire Roots.

Under the brand, students must select a range of fresh produce products that could be supplied to major retailers throughout the UK. The focus should be on vegetables (including potatoes) that can be grown in Lincolnshire.

As part of the challenge schools should try to grow some of their own vegetables, selecting the best produce to go to market. They will need to develop suitable packaging for their produce and think about produce combinations and any other extras that could be included (e.g. a herb mix). You may include promotional wording, serving suggestions or recipe guides with nutritional content. Packaging material must be carefully considered to be environmentally friendly whilst retaining the produce quality and functionality and standing out amongst other competitor suppliers.

Students will fully market their products including a mock 'pitch'. You will need to think about establishing brand values (Who are the products being marketed to? What are the key messages?) and brand assets (sub-brand name, logos, designs), while not forgetting the costings involved. Students can devise a marketing campaign for the brand/products, which could include print-ready advertising, a TV/radio advert or social media promotion.

(Planting in March or before is highly recommended)

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## Challenge 09 FARMING THEN, NOW & THE FUTURE

By 2050 we will need to produce 60% more food to feed a world population of 9.3 billion. Farmers face this incredible challenge while dealing with demanding pressures to be more sustainable and environmentally aware.

Agriculture and food production has seen vast changes and developments over the years. Students should research, discuss, debate, and demonstrate how farming and food production has changed over the years to keep up with demand and investigate the impact these changes have had on British farming.

Schools can consider farming in a broad sense or narrow their focus to one (or a selection) of the suggestions below:

- Dairy Farming
- Poultry Farming
- Livestock
- Arable Farming
- Horticultural Farming
- Renewable Energy Farming

Discuss how farming has had to deal with many issues over the years such as labour intensity, increased population, climate change, costs of production, mechanisation and what those solutions have looked like. Consider the pros and cons of developments in farming and discuss any issues arising.

Schools should delve into what the future might hold. You might like to touch upon subjects such as advancements in precision farming and nano technologies – drones, robotics, sensors, high tech monitoring. What about urban agriculture – vertical farming, aquaponics or genetic modification and edible insects. Look at our big forward thinkers within the county such as LIAT – University of Lincoln, Dyson Farming and Jones Food Company Ltd.

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## Challenge 10 GEN Z-ERO CLIMATE LEADERS OF THE FUTURE

Ørsted is a renewable energy company, leading the world in offshore wind. In the UK, their wind farms can produce enough electricity to power over 6 million homes! Ørsted aims to help the UK reach its Net Zero goals by taking tangible action to create a world that runs entirely on green energy.

This challenge needs students to be forward thinkers. They will work on ways to be more eco-friendly, with innovative solutions to create a better, zero carbon future.

Students will review and research the school's current environmental and sustainability performance. They should then create a 3D model of the school to demonstrate the innovative and idealistic solutions to improve the school's environmental and carbon impact. This could include an onsite wind turbine, solar panels, composting bins, water collectors and so much more.

More advanced students could incorporate working, moving or light up elements to the model to demonstrate the solutions in action.

After the challenge, we want to know if students can practically action any of these solutions. School climate leaders should form a campaign to promote the eco-friendly projects to be developed and implemented in consultation with the whole school, making it a 'greener' and a healthier place to be. Promotion and awareness should be made across the school, families, governors, and wider community.

Students can consider all areas listed below or focus on one or a small selection:

- Energy use
- Litter
- School /Community Grounds – Biodiversity, planting etc.
- Food
- Water
- Travel
- Waste

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