



Stage 1: Introduction

The Farming STEMterprise project will involve children completing a range of cross-curricular tasks in order to grow their own ingredients, develop their own British food flag pizza products, set up a British pizzeria and practise using money in a real life context.

Learning Objective:

- To describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

Stage Overview:

In this stage, the children are introduced to their challenge: setting up a British pizzeria business. The children will choose a name and design a logo for their business before learning where a range of food comes from and building a simple food chain to show this.

Materials needed:

- Food chain masks
- Food chain paper chains
- Food chain template

Presentation notes:

Slide 2: Introduction	<ul style="list-style-type: none"> Explain to the children that during this project, we will be learning how to set up a British Pizzeria business. Explain that a pizzeria is a special restaurant that sells pizza and pizza was originally invented in Italy. Use Google maps to find Italy and challenge the children to also locate the UK. Explain that although our pizza recipe comes from Italy, we are going to make it using only ingredients that have been grown or reared in Britain. Explain that using local ingredients is one way that we can care for the environment because it reduces how far the food has to travel to reach our plates. This reduces the need for transport, reducing air pollution.
Slide 3: Business name	<ul style="list-style-type: none"> Ask the children to think of any restaurants they have been to and make a list on the board. Explain that their British pizzeria business will also need a catchy name to attract customers. Assign the children to mixed ability groups and challenge them to decide on a name for their business.
Slide 4: Business logo	<ul style="list-style-type: none"> Display some pizzeria logo ideas and explain that businesses often use very simple shapes for their logos. Challenge the business teams to design a logo for their British pizzeria. They might like to incorporate the British flag alongside the Italian flag to show that they restaurant makes recipes from Italy using ingredients from Britain.

Slide 5: Where does our food come from?	<ul style="list-style-type: none"> - Explain to the children that all living things need food for energy. Plants can make their own food but animals such as humans cannot do that so we have to eat plants and other animals to give our bodies energy. - Explain that the fruit and vegetables that they eat everyday all come from a plant that has been grown by a farmer. - Challenge the children to think of any plants that humans eat. Share the photographs on the power point and lead a conversation about how each one is grown, addressing any misconceptions. - Raspberries grow on thick, thorny bushes and are ready to eat between May and November. - Wheat grows in big, open fields. The seeds are ground into flour to make food like bread and cereals. - Lettuce is mostly grown outdoors and grows quickly when the weather is warm. - Establish that we can grow some fruit and vegetables in this country but others cannot be grown here because they need different conditions such as a different climate.
Slide 6: Herbivores	<ul style="list-style-type: none"> - Share the new word on the presentation and ask the children to repeat it: herbivore. A herbivore is an animal that only eats plants. - Challenge the children to think of as many herbivores as they can.
Slide 7: Where does our food come from?	<ul style="list-style-type: none"> - Explain that the meat products that we eat come from animals that have been reared by farmers. - Challenge the children to think of any meat products that humans eat and lead a conversation about which animal they have come from.
Slide 8: Carnivores	<ul style="list-style-type: none"> - Share the new word on the presentation and ask the children to repeat it: carnivore. A carnivore is an animal that only eats meat. Challenge the children to think of as many carnivores as they can.
Slide 9: Omnivores	<ul style="list-style-type: none"> - Share the new word on the presentation and ask the children to repeat it: omnivore. An omnivore is an animal that eats plants and meat. Challenge the children to think of as many omnivores as they can.
Slide 10: The red tractor	<ul style="list-style-type: none"> - Display the red tractor logo and ask the children if they know what it means. - Explain that the red tractor logo can be found on a wide range of quality food sources including meat, vegetables, fruit, milk, cheese, sugar and flour. - The union jack within the logo tells us that the food has come from British farms. - Foods that carry the red tractor logo have been produced to a very high standard so if you buy them you know the plants or animals involved have been cared for very well by British farmers.
Slide 11: Food chains	<ul style="list-style-type: none"> - Explain that all living things depend on other living things in order to survive; we can show which living things eat and are eaten by other living things using a food chain. - Share the simple food chain on the power point and explain that the arrows mean 'are eaten by'.
Slide 12: New vocabulary	<ul style="list-style-type: none"> - Use the presentation to share the new scientific terms. - Explain that all food chains start with a plant. We call plants 'producers' because they produce their own food. - All animals, including humans are called 'consumers' because we consume our food by eating other animals and plants. - We refer to animals that eat other animals as 'predators' and the animals they eat are 'prey'. - Display these key terms on your Science working wall for the children to refer to.

Slide 13: Building a human food chain	<ul style="list-style-type: none"> - In groups of five, give the children the grass and cow masks and two arrow signs. The fifth, unmasked child will represent humans in the food chain. - Challenge the children to use their learning to organise themselves into a food chain with the arrows pointing in the correct direction. - Extend children who achieve this by asking them to add the key vocabulary labels to the correct child in their food chain. - Watch the video to check the children's answers and address any misconceptions: https://www.youtube.com/watch?v=uFWfadPFOBA&feature=youtu.be
Slide 14: Application of learning	<ul style="list-style-type: none"> - Ask the children to draw two additional food chains using the template. - Diagrams should be labelled with the name of the animal. - Extend the children to adding their new scientific vocabulary to their food chains and to make a key to show what the arrows represent.
Slide 15: Guess who	<ul style="list-style-type: none"> - Ask the children to work in pairs to play the game but model it for a few rounds with the whole class. - One child should choose a living thing from the selection on the presentation and it is their partner's task to figure out which one they have chosen by asking a series of Yes/ no questions to eliminate the other options. - Encourage the children to use their new scientific vocabulary. - For example: Are you a producer? Are you a cat's prey? Are you a carnivore?

Links to the National Curriculum:

Subject	Topic	Objective
Science	Living things and their habitats	<ul style="list-style-type: none"> - Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food
	Working Scientifically	<ul style="list-style-type: none"> - Identifying and classifying - Using their observations and ideas to suggest answers to questions
Design and Technology	Cooking and nutrition	<ul style="list-style-type: none"> - Understand where food comes from.