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**Future Farming**

**Background**

This course has been co-created by NFYFC training staff and LEAF Education. It can be delivered by LEAF Education Regional RECs, qualified teachers or those who are qualified and accredited trainers within the Federation (through completion of the NFYFC Train the Trainer and/or Advanced Train the Trainer). It has been specifically developed to be delivered to secondary schools; predominantly targeting year 9 learners. This course focuses on British agriculture and is designed to raise awareness of where food comes from, the context of the global population issue, careers in agriculture and the importance of the environment and sustainability.

It is intended that the Future Farming module should take approximately 2 hours to deliver.

**Points for trainers to note**

This session has been developed to take approximately 2 hours to deliver (or 2 x 1 hour sessions) – this is however a recommended minimum and additional time may be allocated for learners to research around the topic. The differing colours on the training plan indicate the 2 sections. The trainer delivering this session may decide longer is needed (specifically if the group being trained is more than 20 people or if specific areas for further discussion have been identified). Suggested timings have been added to the training plan – these can be adjusted to suit and specific times can be added by trainers who wish to add them, date should also be added to this section.

**Resources**

PowerPoint & projector, paper, pens, flip chart, coloured flip chart pens, string and clips (not essential) and A4 paper.

Trainers’ handout 1, 2, 3, 4, 5 & 6 and participant handout 1, 2, 3, 4 & 5.

Materials for an icebreaker game of your choice.

Wifi access is required if you would like to use the online Kahoot quiz – a paper alternative is provided in participant handout 2 if internet access in not available.

Speakers for the videos.

**Aim**

Raise awareness of the British agricultural industry as a viable career option.

**Intended learning outcomes/objectives**

1. Does agriculture have a role in solving global challenges?

→ Understand the impact population growth has on food production.

1. What future technologies and advances are there within agriculture?
2. Where is the world’s food produced?

→ Understand Countries imports and exports of food for a variety of different reasons.

1. Which industries are associated with agriculture? How do these extend into the food and retail sectors?

→ How many jobs does it take to produce your item of food?

1. What are the career opportunities that are available?

→ Are you able to identify roles involved in British food production?

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| **Time & Date** | **Content** | **Trainers activities** | **Participant activities** | **Resources** | **Evaluation methods** |
| 10 minutes | Introductions:  Objective: Develop understanding around what NFYFC has to offer to its members and the basic function of the organisation. Outline the core aims of LEAF Education and the range of partners they work with. | Introduce trainers and the module title.  Trainers introduce NFYFC using participant handout 1 - NFYFC infographic and participant handout 2 – LEAF Education infographic.  Discuss the content with the group and answer any questions learners may have. | Listen  Ask questions | PowerPoint slide 1 – 4  NFYFC Infographic  LEAF Education Infographic  Trainers Notes |  |
| 2 minutes | Learning Objectives: Explain the purpose of the module and what learners will achieve. | Explain:  Session Content -  Objectives for the session | Listen | PowerPoint slide 5 |  |
| Approx 6 minutes of video  8 minutes for learners to discuss and feedback | Objective: To understand about the current and future world issue around population growth and the role that agriculture has to play.  Content: Global population increase and importance of agriculture. | Play the TED talk videos – 2 sections  Encourage learners to think about the effect that a growth in population will have on the economy and agriculture in the UK but also globally. | To actively engage in discussions, think about what is produced in this country – follows into the mind map activity below | PowerPoint slide 6 - TED talk videos  Questions that could be discussed with learners are included in the trainers’ notes.  <https://www.ted.com/talks/hans_rosling_on_global_population_growth>  Speakers | Students’ input and feedback into discussions. |
| 15 minutes | Objective: To evaluate and summarise the main global challenges we face.  Content: Looking at different issues that global population increase might have.  **Understand: The 4 categories and how farming impacts on these** | Set up the mind-map activity.  Focus on:  Climate/water  Food sector  Biodiversity  Energy  All linked to earth in middle and explaining the impact that farmers have. This activity can also be linked to growth in world population from the previous activity. | Small group discussion and creation of mindmap. | PowerPoint slide 7  A3 mind map worksheet  Flipchart pens  Some learners may ask what biodiversity is – a definition is included in the trainers’ notes. | Students to show their mind-maps and share their links. |
| 8 minutes | Objective:  Interesting facts and figures about UK agriculture.  Content:  Quiz on UK agriculture, food production and environment. | Kahoot Quiz  <https://kahoot.com/>  Discuss and review the facts and statistics around UK agriculture  Kahoot Quiz - follow instructions for the activity as detailed in trainers’ handout 4.  **Ensure the quiz is loaded and working (or paper copies distributed) prior to the start of the session.** | Kahoot Quiz – live quiz - students need their phones. This can be done in small groups. | PowerPoint (screen 8)  Access to the Kahoot Quiz  Kahoot Quiz instructions in trainers’ handout 4. Quiz answers are supplied in trainers’ handout 5.  Paper version supplied in participant handout 2 if internet access is not available. | Students to identify interesting facts / figures – what surprised them? What did they already know? Etc oral feedback. |
| 10 minutes | Objective: Global food production, importation and exportation.  Content: Using global maps to understand the types of produce that different countries import and export and analyse the reasons for this. | Global produce maps together with prompt question sheets to be allocated to groups of learners for discussion (6 pairs of maps):  \*Coffee production and consumption  \*Dairy imports and exports  \*Fruit imports and exports  \*Vegetables imports and exports  \*Meat imports and exports  \*Donkey use and access to water | To actively engage in discussions, think about what is produced, imported and exported from which country – discuss the questions allocated on the prompt sheet and feedback to the group. | PowerPoint slide 9  Participant handout 3: (6 pairs of global produce maps).  Participant handout 4: Global maps prompt questions – one sheet per map topic.  Flipchart paper and pens | Students to identify the types of produce imported or exported from specific countries.  Compare high v low rates and discuss the reasons. |
| 5 minutes | Objective: Highlight the range of career opportunities within agriculture.  Content: amazing careers in agriculture video. | Play the amazing careers in agriculture video – highlight the range and variety of roles and working environment.  Answer any questions that learners may have. | Watch and listen to the short video clip.  Ask relevant questions. | PowerPoint slide 10 – amazing careers in agriculture video.  <https://www.youtube.com/watch?v=azZuW5dnQGk>  Speakers |  |
| 5 minutes to explain the activity  20 minute activity | Objective: awareness of career opportunities.  Content: To look at different careers options available to students. | From field to fork (e.g.)  Either pre-constructed ‘chain’ or develop this as a class. The journey to producing a selected product from start to finish.  Pack of cards with careers on them which fit in to the chain. Variety of different careers involved here not just a farmer.  Agronomists, tractor driver, farm business manager, marketing and sales etc.  Cards include skills/qualifications needed / salaries / routes in (e.g. university / college / apprenticeships).  This activity can be done in a variety of ways:  1 – Learners have a pack of cards in small groups and have to put them into the chain.  Students can link the roles they have to specific tasks or specific food or meal production.  Some examples are given in the trainers notes. | Learners read through their cards and decide where on the journey to production their job role fits in.  Learners can highlight the skills that the person in the scenario has and match these to jobs that they would be able to carry out – this will highlight the benefit of transferable skills.  They can also further sort the cards by groups: indoor / outdoor, salary groups, qualifications required. | PowerPoint slides 11-13  Participant handout 5: Future Farming jobs cards  String  *Chance to make this a longer task / extension task: research different careers (perhaps ones they can think of that aren’t included in the jobs cards pack and research salary – could use Farmers Weekly website (Add another 15 minutes if so – if students can access ipads/tablets/phones).*  *Outline the sources that were used to collate all of the jobs cards information – a list of acknowledgements is included on slide 13.* | Visual feedback from the chain that students created.  Small group feedback in terms of what careers are of interest.  Question students – was it a shock how many job roles there were in creating food products? Were they surprised by salaries? What was the most interesting career for them?  Where can they go for further information? – Sources are acknowledged in the training notes. |
| 5 minutes to explain the activity  20 minute activity | Objective: to identify what careers can solve global problems likely to occur in the future.  Content: To look at future careers within agriculture. | Encourage learners to revisit key issues they highlighted during the mind map activity (water, energy, biodiversity, food security)  Water e.g. Home Farm has had a visit from the Environment Agency. Their water has high levels of fertiliser in the river which is a threat to wildlife. | In pairs, or groups, select job cards of who can help solve the problem, examples:  -Agroecologist  -Aquaponic farmer  -Autonomous vehicle engineer  -Carbon capture technician  -Urban farmer  *Extension task: These videos are not included in the PowerPoint slides but can be shown -*  *Watch these videos to see future farming:*  [*https://www.youtube.com/watch?v=NO8PmqEI0cc*](https://www.youtube.com/watch?v=NO8PmqEI0cc)  *Will we farm for ourselves:*  [*https://www.youtube.com/watch?v=zXplJ3Cb2pQ*](https://www.youtube.com/watch?v=zXplJ3Cb2pQ)  *They show autonomous machinery working in agriculture.* | PowerPoint slide 14  Separate careers cards for future careers – included in the pack.  This will have a brief overview of these types of careers, but might not have salaries.  2 blank pieces of paper for students to create two careers that they think might be around in 50 years for farmers. | Answer the question and get feedback from students:  How is agriculture going to change in the next 50 years? |
| 5 minutes | Evaluation and signposting. | Ask learners questions as a full group to ensure their full understanding of the key learning objectives.  *Ask learners to complete the feedback form.* | Answer questions asked effectively. | PowerPoint slide 15  Feedback form | Questions are answered appropriately. |