



Education resources – phase 3

A guide for teachers



Contents

This document is designed to offer guidance to teachers to provide an overview of the CommNet project, including an overview of the toolkit and the range of resources that can be used to support a range of learning activities.

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Introduction

CommNet is a three year European Union (EU) project which aims to help people understand more about EU-funded research projects on food, fisheries, agriculture and biotechnology research.

To ensure bio-economy research is relevant and accessible to adults and children, politicians and industry, media and teachers, a variety of different activities are being undertaken. This work includes communications training and media promotions, building networks with industry and government and the development of an educational toolkit for children and young people.

The CommNet Toolkit has been developed to provide educators and learners with a collection of resources for schools about agriculture, fisheries, food safety, traditional and modern biotechnology, health and nutrition throughout Europe.

This guide is for phase 3 – pupils aged 11 to 14 years (approximately). They have been designed to be used as a set or individually – the choice is yours.



The CommNet Competence Framework

The CommNet Education Toolkit is based on a competence framework. The CommNet Competence Framework is a progressive tool that identifies three areas of knowledge:

- where does food come from;
- know about your food,
- you and your food.

These areas of knowledge have been identified through analysis of European funded FP6/7 projects. Under each of these areas are key subject themes, supporting the development of children's and young people's knowledge. These themes are underpinned by the development of knowledge and understanding related to food sustainability, food safety and biotechnology.

The nature of these subjects dictates that they are interrelated and therefore can be identified across themes. The framework is based on classroom learning skills which increase in difficulty ensuring progression across the themes.

The frameworks not only shows the areas of knowledge that we believe children and young people should demonstrate an awareness of or understand, but also how this should be differentiated for different ages and abilities.

The CommNet Education Toolkit divides the age range into the following phases:

- Phase 1: 5 to 8 years
- Phase 2: 8 to 11 years
- Phase 3: 11 to 14 years
- Phase 4: 14 to 16+ years



However, the ages within these phases may be different depending on the Member State in which you work. This therefore, only acts as a guide, showing progression in understanding from one phase to the next. The competences are progressive and cumulative from one age phase to the next.

The framework could be used in a variety of ways, such as:

- a guide for developing resources for children and young people;
- an audit tool for schools and other settings to plan lessons;
- support for curriculum development.

The CommNet Competence Framework for Children and Young People about Food, Fisheries, Agriculture and Biotechnology can be found at www.commnet.eu

The resources: Phase 3

The teaching resources and activities have been designed to develop the learning of pupils aged 11 to 16+. They can be used in a flexible way to support teaching and learning across a range of curriculum subjects.

The resources for *Where does food come from?* are divided into two main sections:

- Agriculture
- Biotechnology

In total, there are six presentations, four work sheets and three activities to use. Within each section there are a range of resources that relate to one or more of the competences. These are outlined below.



Key:

- P electronic presentation
- WS work sheet
- A activity

| Phase 3 Agriculture | Resource | Competence(s) |
|--------------------------------|----------|---|
| Food production and processing | P WS | To know about a variety of food processing techniques. |
| Food production – farm to fork | P | To gain an overview of food production, from farm to fork, in Europe. |
| Food safety | P WS | To know about food safety systems and how they are used for the safe production and processing of food throughout Europe. To know about animal and fish farming and the standards for maintaining their welfare. |
| Sustainable food production | P | To be able to define factors contributing to sustainable food production and processing. To recognise how agriculture, farming and fishing impacts on the environment. |
| Reducing food waste | A | |
| Sustainable food | A | |

| Phase 3 Biotechnology | Resource | Competence(s) |
|--------------------------|----------------------|--|
| What is biotechnology? | P A WS | To define biotechnology. To understand areas of <ul style="list-style-type: none"> • traditional biotechnology; • modern biotechnology; • future uses of biotechnology. To understand the basic scientific principles of biotechnology. |
| Nanotechnology | P WS | To define nanotechnology. To understand the basic scientific principles of nanotechnology. |



Learning activities

A range of downloadable resources have been developed for use in the classroom. They can be used to support the development of the competence framework and/or specific areas of your curriculum. This might include science, global citizenship, food and nutrition and geography. Here are some examples.

| Competence(s) | Activity | Resources |
|--|--|---|
| To know about a variety of food processing techniques. | <p>Show the pupils a range of different foods that have been minimally, partly and highly processed. Ask them to arrange them into groups and explain why they selected the groups. Ask them why they think the foods have been processed.</p> <p>Show the pupils the presentation Food Processing to recap and develop thinking.</p> <p>Complete the food processing worksheet.</p> | <p>Presentation Phase 3 Food Processing</p> <p>Worksheet Phase 3 Food processing</p> |
| <p>To gain an overview of food production, farm to fork in Europe.</p> <p>To gain an overview of food production in the rest of the world.</p> | <p>Challenge the pupils to think of as many different foods that are grown, reared and caught in EU member states. Ask them to identify the different factors that affect what is grown and/or reared in different countries.</p> | <p>Presentation Phase 3 Food production farm to fork</p> |
| To be able to define factors contributing to sustainable food production and processing. | <p>Ask the pupils to define sustainable agriculture and what they think can be done to improve sustainability in food production.</p> <p>Show the presentation Sustainable food production (and processing). Carry out activity 1 and/or 2.</p> | <p>Presentation Phase 3 Sustainable food production (and processing)</p> <p>Activity Phase 3 Sustainable food</p> |
| To define nanotechnology. | <p>Introduce the pupils to the concept of nanotechnology.</p> | <p>Presentation Phase 3 Nanotechnology</p> |