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EDUCATIONAL TOOLS TO APPROACH FOOD SUSTAINABILITY

ESCAPE ROOM



Educational tools to approach food sustainability



Authors:



This guide has been produced in the framework of the project Climate Action to the Table, which is part of the European Climate Initiative (EUKI). EUKI is a project financing instrument by the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

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Foreword

This guide describes an escape room activity to be carried out by educators on the topic of sustainable food.

It aims to be an inspiration to educators in formal, non-formal and informal settings, and to any person, organisation or government body interested in addressing the link between what we eat and climate change in an educational and interactive way. The ultimate goal of this guide is to encourage the adoption of awareness-raising around sustainable food in educational settings, and to promote the engagement of children and young people in caring for the environment.

The guide includes all the needed information required to run the escape room: objective, recommended age, materials required, etc. However, we recommend adapting it to the context and needs of each group of children, educational setting and region.

The guide was created by Fundesplai (Catalonia, Spain), Umanotera (Ljubljana, Slovenia) and Fifty-Fifty (Central Macedonia, Greece) as part of the Climate Action to the Table project. This project is part of the European Climate Initiative (EUKI). EUKI is a project financing instrument by the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

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1

Towards better food choices and a sustainable food system

The food system is at the heart of the great challenges humanity now faces. According to United Nations projections, by 2050 the world's population will reach nearly 10 billion people, all of them with the same need to eat. The right to food is a basic human right; food is essential for human survival and health, but it is also a complex topic that impacts our society and the world. Currently, the global food supply system accounts for a third of all anthropogenic greenhouse gas emissions and is thus one of the main causes of the climate crisis in which we found ourselves (Crippa et al., 2021). In addition, the current way of producing food leads to the accelerated disappearance of biodiversity, which threatens the existence of human civilization (Benton et al., 2021).

The predominant way of producing and consuming food is not only bad for the planet, but also for our health. It is a leading cause of non-communicable diseases (such as cardiovascular disease, cancer, diabetes) and therefore the cause of many premature deaths around the world (Benton et al., 2021). The good news is that recent studies indicate that it is possible to meet the global food demand in a healthy and sustainable way, if adjustments are made in the way we produce and consume food (EAT LANCET Summary report, 2019). In fact, most of the eating habits that are good for the planet are also good for our health and vice versa. Food, human health and climate are inextricably connected issues and a successful transition to a more sustainable future requires deep changes in the way global food systems work.

Food is a common topic for everyone. It interconnects economic, environmental, cultural and social aspects of sustainable development and is a central axis of action in the fight against the climate emergency.

We are living in a climate emergency that affects and threatens several life forms. It is a decisive decade, where rapid and sustained emissions reductions are needed to limit global warming. To achieve this, transforming the food system is key. And the need for people to make better food choices has never been more urgent.

In general, the connection between food systems and climate change is not being widely addressed in educational spaces. Among the reasons for that is the fact that food has not been a central topic on the climate change debate and the lack of resources available to help teachers present this complex topic to their students. Therefore, we have created this guide, to inspire and equip educators with different tools and activities to bring this vital subject into their classrooms. The aim of this set of activities is to encourage children and young people to adopt eating habits that are good for their health and for the planet. Furthermore, we hope this guide will support educators to empower their students to be agents of change in their families and communities.



This infographic was produced as part of the European Climate Initiative (EUKI). EUKI is a project financing instrument by the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

It is important to follow 7 principles that determine sustainable and environment-friendly food. These are:

1 Mainly plant-based

The overconsumption of animal protein is one of the main causes of CO₂ emissions and other greenhouse gases. Reducing the current consumption of meat is possible because the proteins we need can also be obtained from plant-based foods. There is growing scientific evidence of the benefits for our health and the environment of consuming more plant-based foods, such as vegetables, fruit, pulses, nuts, seeds and whole grains. Choosing a diet with less animal protein is essential for battling climate change and improving our health and that of the planet.

Currently, the food system is responsible for 30 % of global greenhouse gas (GHG) emissions. Food of plant origin has a much lower carbon footprint than food of animal origin (meat and milk), as livestock farming is the largest source of GHG emissions in agriculture. According to the United Nations (FAO, 2013), livestock farming produces 14.5 % of the world's total GHG emissions. This figure exceeds the direct emissions of all the cars, lorries and aeroplanes in the world put together. Besides that, it has also a huge impact on land occupation, deforestation, and water consumption. Much of the livestock feed comes from countries where tropical forests, which are the most important sinks of CO₂, are cut down as a result of its production. Therefore, it is an activity that very significantly contributes to the climate crisis.

2 Produced sustainably

The conditions under which food products are prepared are crucial. Whenever possible, we should choose products grown on farms that are committed to quality and to the principles of organic farming and sustainability. Supporting local organic farming is a strategy to lower the carbon footprint of the food system on the planet and has minimal impact on the environment as it does not allow the use of mineral fertilizers and synthetic pesticides (which have harmful effects on soil, air, water and biodiversity).

To achieve environmentally friendly and quality production, organic farms eliminate the use of fertilisers and synthetic plant protection products. To regenerate the soil, they cultivate fodder legumes, use nutrients of plant origin and manure from organic farms. To protect plants against disease, organic farms use natural techniques and products, among other practices. Agricultural formulas are being developed that aim to make greater environmental protection compatible with higher levels of agricultural efficiency. These are characterised by the use of techniques that reduce CO₂ emissions and water use, minimise energy consumption, limit the use of fertilisers and promote circular the economy.

3 Reduce food waste

Enough food is produced to feed the entire world population, but we have a broken food system that, rather than responding to peoples' nutritional needs, responds to market logic. We waste a massive amount of food that isn't consumed, while around 800 million people suffer from an insufficient and poor diet (FAO, 2013).

Waste represents an enormous loss of resources, not only food but also natural resources: water, land use and energy consumption. It is also responsible for 10 % of greenhouse gas emissions as during food's decomposition, methane is released, which is a very potent greenhouse gas. In fact, if food waste were a country, it would be the third-largest emitter, after China and the United States (FAO, 2013).

There is waste during every stage of the food chain system: from production in the fields, processing of the food, its sale and distribution to the actual moment of consumption. However, almost 40 % of waste in the entire chain occurs in homes, where there is an enormous opportunity for us to have an impact (FAO, 2013).

4 Seasonal

We have built a global industrial production system that provides us with food from anywhere in the world at any time of year. Locally grown food is an environmentally responsible option, especially if we choose food in its natural season.

By choosing **seasonal food**, we contribute to reducing greenhouse gas emissions from storage and processing intended to slow down ageing. By buying seasonal food, we also avoid buying products from heated greenhouses. These are big consumers of energy, and if this is not produced from renewable sources, they are also a big source of greenhouse gas emissions.

5 Local and bought directly from local producers or from fair trade

Large distances between production and consumption mean the use of a lot of energy and require extensive infrastructure. Buying locally and buying seasonal are two sides of the same coin and a chance to renew the connection between town and country, and to promote respect for the source of our food and the people who produce it.

The huge distance between production and consumption means an enormous use of energy and the construction of many infrastructures. This system causes a loss of regional food sovereignty and encourages unfair relations within the food chain, benefiting companies in the sector with more economic power. Eating consciously involves asking where what we eat comes from, how it was made and under what conditions, and why we pay a certain price to buy it. It means taking control of our dietary habits and choosing foods that have the least environmental and social

impact. With some foods, e.g. with coffee, tea and chocolate, we cannot stock up on local produce. When buying food from other parts of the world, we choose certified food that follows all principles; Fair Trade products for example, because we support fair and stable pay for smallholders in the global South, safe and healthy working conditions for food production, a ban on child labour, gender equality in pay and decision-making, and in most cases also more environmentally friendly food production.

6 Minimally packaged

The amount of packaging used for food has skyrocketed in recent years. We unnecessarily over-package and wrap food in the name of our safety and convenience, often in single-use packaging and mostly in plastic, due to its useful characteristics: lightweight, highly resistant, flexible, etc.

Plastic is an almost indestructible material: it can take up to 1000 years to decompose and most plastic items will never completely disappear; they simply get smaller and smaller. If plastic becomes waste and slowly decomposes in landfills or is incinerated in incinerators, it causes greenhouse gas emissions. A large amount of plastic also ends up in the sea, harming birds, marine mammals and fish, as well as reaching our plates in the form of microplastics. By consuming food that is packaged as little as possible we contribute to fight against this huge environmental challenge.

7 Minimally processed

The consumption of processed and ultra-processed foods has increased exponentially over recent decades. According to UNICEF, the incidence of childhood malnutrition is rising because of the consumption of products high in fats and sugars, such as fast food and snacks.


Aided by advances in technology, the food industry has promoted ultra-processed foods. These products are less nutritious than fresh food and continuous, long-term consumption has harmful consequences for our health. They also have a considerable environmental impact. Therefore, by deciding to consume as little processed food as possible, we are not only taking care of our health but also contributing to reducing greenhouse gas emissions from these industrial processes, which are often energy intensive.

For a successful transition to a climate-neutral society, it is important that we follow all seven guidelines for a more climate-friendly diet as much as possible. Among the listed measures, the decision to eat mainly plant based food is the one with the greatest individual impact.

2 Escape room

Audience 12-18 years old



Time	75-90 minutes	Space	Classroom
Description	<p>Simulation game that consists of a small escape room, in which you complete a series of challenges. These challenges are related to different issues around how food can change the world. The issues that will be explored through the game are:</p> <ul style="list-style-type: none"> • Having a diet based on plant-source foods • Production carried out by sustainable or organic farming • Making good use of food in order to avoid food waste • Buying local and buying in-season • Using as little packaging as possible • Eating fresh food that is as little processed as possible <p>Finally, we will discover the keys to eating healthier and in a way that is more sustainable for the planet.</p>		
Materials	<ul style="list-style-type: none"> • Twenty-four jars or boxes that can be closed with a lock. • 8 locks with letters • 16 locks with numbers • Escape room annexes printed and laminated • 1 PC, mobile or tablet so that the groups can look things up. • 1 Cryptex <p>See annex 1 for more information</p>		

OBJECTIVES AND SKILLS

- To think about the true costs of many of the products that we consume and their harmful effects on our own health and the health of the planet.
- To educate and be aware of what is involved in eating in a way that is sustainable and the main challenges to be met in achieving that.

SCHEDULE AND STAGES OF THE ACTIVITY

- **Stage 1:** Introduction and the aim of the game (10 minutes)
- **Stage 2:** Solving puzzles in teams (60 minutes)
- **Stage 3:** Conclusions from the game (20 minutes)

DOING THE ACTIVITY

Stage 1: Introduction and the aim of the game

Four-five tables are spread around a room. Each table has six jars numbered 1 to 6 with a challenge in each one. They are all locked with a lock, apart from Jar 1. Each table has paper and pencil, and the whole group has at least one tablet (or PC, mobile, or similar device) for googling things.

The participants are split into teams. The teams can be chosen by the educator or by the young people sitting around the table, 4-6 people per table. It is explained to them that each group will have to do a series of challenges that are in the jars in order to find the final formula for how to eat in a more sustainable way. When they have successfully done the six challenges, using the clues found by the other groups, they will be able to open a final cryptex that contains the formula to eat in a more climate-friendly way.

Stage 2: Solving puzzles in teams

1) Plant-based food

CO2 IMPACT: We open the first jar, which is not locked. The message inside says:

Here are photographs of food. Calculate the CO2 emissions of the emphasized food product in each picture and arrange them in order from lowest to highest in terms of CO2.

There are CO2 calculators online like the one at <https://myemissions.green/food-carbon-footprint-calculator/>

The first letter of each food product in the set order gives you the clue for the next lock.

See Annex 2 to print the challenge.



Result: When they use the CO2 calculator, they get the following results ordered from the least to most emitter as follows:

Apple	Tofu	Milk	Beef
72 g CO2	232 g CO2	352 g CO2	5416 g CO2

If you want to use another CO2calculator, the results might differ, but the order will be the same.

That means that the code to open the lock on the Jar 2 is: **ATMB**

2) Sustainable and organic agriculture

When they open Jar 2, they find a stamp to certify organic food products in the European Union (see Annex 3).



They also find the following message:

This is the official organic logo that confirms that a food product was produced organically within the European Union. The logo makes it easier for consumers to identify organic products and helps farmers to market them across the entire EU.

Find the four true sentences about what the certification confirms. The number of each of them ordered from lower to higher number will enable you to open the next jar.

1. *Inspection of producers every 25 years.*

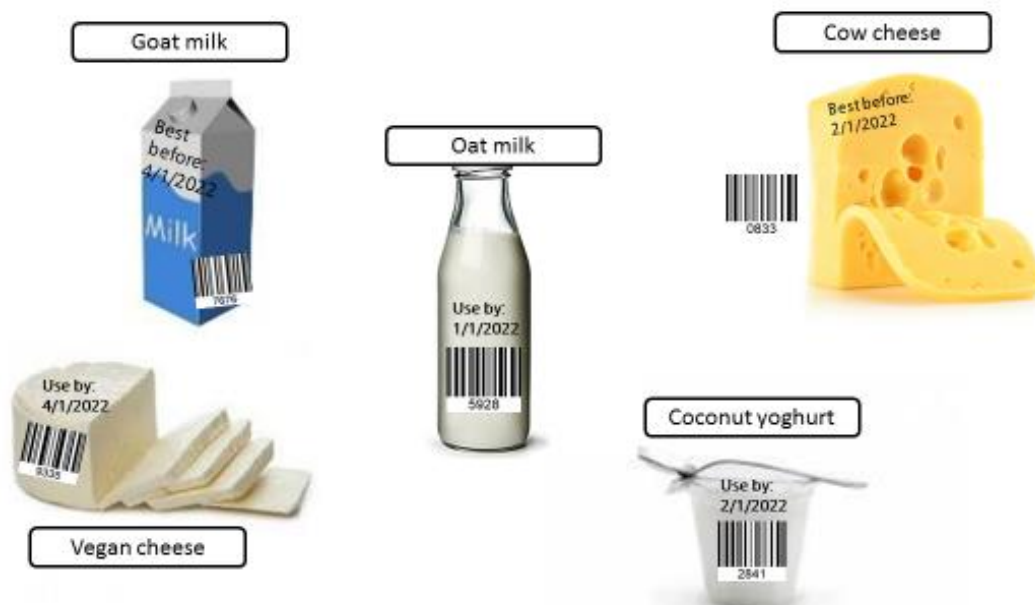
2. *Continuous monitoring and review of the production system, products and labels.*
3. *The production system protects the environment and uses as natural processes as possible, following the cycle of nature.*
4. *Animals have the following living conditions: they are enclosed without access to outdoor or grazing areas, and they eat industrial feed.*
5. *Producers use genetically modified (transgenic) products.*
6. *Restricted use of chemical pesticides, fertilisers and antibiotics on agricultural food products.*
7. *There is no maximal conservation of the eating and nutritional qualities of food through the use of chemical pesticides.*
8. *Products are traceable, which means that the source and destination of the products are known.*
9. *No account is taken of the impact on living beings that live in the area of production.*

The group might need to do an online search to find the solution. The educator can help them find the European Commission webpage about Organic production and products: [Organic production and products | European Commission \(europa.eu\)](https://ec.europa.eu/organic/)

Code to open the lock on the Jar 3 is: 2368

3) Food that is not wasted

Jar 3 is opened to reveal the following labels (see Annex 4):








Often, we throw food away when it can still be eaten, or we could plan our shopping better so that it does not go out of date. Do you know the difference between the best before date and the use-by date? You can search online... (for example, at [The Difference Between Best Before and Expiry Dates \(foodsafety.ca\)](https://www.foodsafety.ca/))

Here are some foods. Plan your eating for a five-day week, eating one of these products every day according to their best before and use by dates, and don't eat any food that has gone past its use-by date. The week begins on 1 January 2023.

What type of product cannot be eaten on Friday 5 January? The milk, the yoghurt or the cheese? Enter the code in the next lock.

























Use-by-dates are the last day on which food can be consumed. An example of a plan might be this one, and of course, there are other possibilities.

Monday 1 January 2023	Tuesday 2 January 2023	Wednesday 3 January 2023	Thursday 4 January 2023	Friday 5 January 2023
				
Barcode: 0833	Barcode: 2841	Barcode: 5928	Barcode: 9335	Barcode: 7676
Oat milk Use by date: 1/1/2023	Coconut yoghurt Use by date: 2/1/2023	Cow cheese Best before: 2/1/2023	Vegan cheese Use by date: 4/1/2023	Goat milk Best before: 4/1/2023

The answer to the question is yoghurt because it expires on 2 January and would not be safe to eat on 5 January. On the other hand, at least one type of cheese and milk can both be consumed on 5 January because they have the best before dates. The code on the yoghurt is the code to open **Jar 4: 2841**.

4) Seasonal and locally produced food

Each group has a list of 20 fruits and vegetables divided by their season. Most of them are locally produced. However, two of the fruits and vegetables are not locally produced or are not placed in the right season. The letters corresponding to the fruits and vegetables that should not be part of the list, in alphabetical order, are the code to open the next lock (see Annex 5).

Spring 	Summer 	Autumn 	Winter 
 01 Artichoke  02 Strawberries  03 Asparagus  04 Mango  05 Peas	 06 Watermelon  07 Peach  08 Pear  09 Cabbage  10 Tomato	 11 Sweet potato  12 Pumpkin  13 Fig  14 Kaki  15 Pomegranate	 16 Kiwi  17 Cauliflower  18 Thistle  19 Lemon  20 Mandarin

Note: this list of fruits and vegetables might need to be adapted to the local context.

The correct answer is Cabbage (because it is a winter vegetable), and Mango, because it is not locally produced.

The code to open Jar 5: 0904

5) Packaged as little as possible

How much packaging do we produce every day linked with our food? A lot? Tons! As well as the energy and environmental cost of producing and recycling packaging, the majority do not enter the recycling system. Do you know how many years it takes to recycle each of the packages you can see?

Let's exercise our imagination: instead of thinking about when in the future will packaging be degraded, let's imagine they are degraded today... in that case, when would it have been produced?

Link each piece of packaging and its clue to the time in history it is from, using the number of years it takes to break down.

Once you have them in chronological order, from the most recent to the oldest, take the first letter of the names of the four places where there are clues in date order, and you will have the combination for the lock.



This polystyrene packaging was used for a sandwich eaten by Harald Hardraade, the Viking who led an unsuccessful attempt to invade England. The battle is considered to mark the end of the Viking age.

This plastic bottle was left here by an Aztec ruler after settling at Texcoco Lake.

This glass bottle was used to bottle the wine grown on American soil that had just been discovered and where Arizona is today.

The soda in this can (made of aluminium) would have been drunk to celebrate the end of the Second World War in London.

Years which need to be linked to each piece of packaging and clue, representing the number of years it takes to break down one packaging.

1945

1492

1325

1066

Answer:













Packaging and clue	Calculate Year
<i>The soda in this can (made of aluminium) would have been drunk to celebrate the end of the Second World War in <u>L</u>ondon.</i>	1945 (50-70 years)
<i>This glass bottle was used to bottle the wine grown on American soil that had just been discovered and where <u>A</u>rizona is today.</i>	1492 (about 500 years)
<i>This plastic bottle was left here by an Aztec ruler after settling at <u>T</u>excoco Lake.</i>	1325 (about 700 years)
<i>This polystyrene packaging was used for a sandwich eaten by Harald Hardraade, the Viking who led an unsuccessful attempt to invade <u>E</u>ngland. The battle is considered to mark the end of the Viking age.</i>	1066 (1000 years, more or less)

Code for Lock 6: LATE

1) Processed as little as possible

We should eat food that has been as little processed as possible.







Step 1: Complete the table (the cut-outs and need to be put in the correct place) (see Annex 7).

Fresh product	Processed product	Ultraprocessed product
		
		
		
		
		
		



Step 2: Once you've completed the table, use this unblocking pattern (you will see a screen with three holes that match up with certain foods) (see Annex 7).

In those three words, one of the five vowels is missing. Which vowel?

The words are APPLE, ARTICHOKE, POTATO (Words in any language can be used. The cryptex code can be changed and adapted to the needed letters). That means the missing vowel is U. U is the final code for all the groups.

Stage 3: Conclusions from the game

We wait for all the groups to finish and get their U. When they all have a U, we have the code to open the cryptex.

CODE FOR THE SHARED COMBINATION LOCK (CRYPTEX): UUUU

We open the cryptex and the magic formula for eating healthier and more climate-friendly is revealed. We take out a page that has the following points:



Now, the educator explains each of the challenges the groups have done:

1. **Mostly-plant based.** It is important to eat a diet based on plant-source foods because animal-origin foods, particularly meat, have a big climate and environmental impact. We saw that in the first test when the impact in CO₂ footprint of the beef burger was much greater than the other foods, and milk followed.

2. **Produced organically.** We should respect the environment when producing food. There are a number of official marks, like the EU mark that we saw in challenge 2 that show that food complies with the standards of organic farming: no use has been made of pesticides, no GMOs, the animals have good living conditions, etc.

3. **Food that is not wasted** We currently waste one-third of the food produced in the world. It is important not to throw so much food away. One thing we can do is to buy only what we need and to plan our shopping so that food does not go out of date. It is important, as we saw in challenge 3, to distinguish between use by dates - the date after which a product is no longer safe - and best before dates - which is a suggestion as to when food is best to eat while it still has all its best eating qualities. That way, we won't have to throw away a lot of food, and we will reduce the environmental impact of our food waste.

4. **Buying local, buying in season.** We looked at this issue in challenge 4. Did you struggle to say which products were in season and where food comes from? It is important to eat food as close as possible to where we live and not to buy food from the other side of the world because that produces more CO₂ emissions. Eating food that is in season is also important, to avoid food grown far away or in greenhouses, which also consume a lot of energy. It is important to buy as directly as possible from the producer themselves all the better, to strengthen the local economy and minimise environmental impact. If it comes from abroad, make sure at least that is fair trade.

5. **Packaged as little as possible.** It is important for food to be fresh and to have as little packaging as possible. We are throwing away more waste than ever! We saw

in challenge 5 how many years it takes for packaging to break down. Plastic and polystyrene take hundreds or thousands of years to break down! That means we have to avoid such packaging when we buy as well as when we take food home, using shopping baskets, trolleys, biodegradable bags, glass containers and reusable plastic containers, etc. and avoiding products that use a lot of packaging.

Note for the educator: clarify that the pieces of packaging were not invented on the date we indicate in this challenge, in fact, most of them (except the glass bottle) have only been invented in the XIX and XX centuries.

6. **Processed as little as possible.** *It is important to prioritise fresh food and to try to choose food that is as little processed as possible. Above all, stop eating ultra-processed food: your health will thank you. But ultra-processed products are also less environmentally sustainable because they undergo a lot of industrial processing, use a lot of packaging, and they have a lot of added sugar, salt, fat, colourings, additives, preservatives, flavour enhancers, etc.*

So, in the game, we learnt the key points to eating healthier and in a more climate-friendly way by taking better food decisions.

3 Escape room annexes

Annex 1 - Escape room materials

Minimum needed materials:

- Twenty-four jars or boxes that can be closed with a lock.
- 8 locks with letters
- 16 locks with numbers
- Annex 1 printed and laminated
- 1 PC, mobile or tablet so that the groups can look things up.
- 1 Cryptex



Other versions of the escape room can be created. For instance:

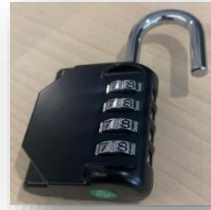
MATERIAL	QUANTITY (FOR 4 GROUPS)
Escape room annexes printed in colour and laminated	4
Shopping cart (to carry around all the materials)	1
Reusable snack bag	4
Box with metal seal	4



Mesh shopping bag	4
Tea Box	4
Recipe booklet with locker seal	4
Garbage bin	4
Cryptex	1
Chain lock (with numbers)	4



Lock with numbers	8
Lock with letters	8
Seal with the organic flag	4
Green ink for seal	4
Yoghurt container	4
Small milk bottles (or simulated milk bottles)	8



<p>Simulated cheese (this can be done with a cheese box and yellow felt)</p>	<p>8</p>	
<p>Plastic bottle</p>	<p>4</p>	
<p>Polyethylene hamburger packaging</p>	<p>4</p>	
<p>Small can</p>	<p>4</p>	
<p>Small soda glass bottle</p>	<p>4</p>	
<p>Rope and cardboard to mark the numbers of the challenges</p>	<p>-</p>	

Annex 2 - Jar 1

*Here are photographs of food. Calculate the CO₂ emissions of the emphasized food product in each picture and arrange them in order from **lowest to highest** in terms of CO₂.*

There are CO₂ calculators online like the one at <https://myemissions.green/food-carbon-footprint-calculator/>

*The **first letter** of each **food product** in the set order gives you the clue for the next lock.*



A tofu burger (125 g)

A glass of milk (200 ml)

A beef burger (125 g)

An apple (80 g)

A tofu burger (125 g)

Annex 3 - Jar 2



This is the official organic logo that confirms that a food product was produced organically within the European Union. The logo makes it easier for consumers to identify organic products and helps farmers to market them across the entire EU.

Find the four **true** sentences about what the certification confirms. The number of each of them ordered from lower to higher number will enable you to open the next jar.

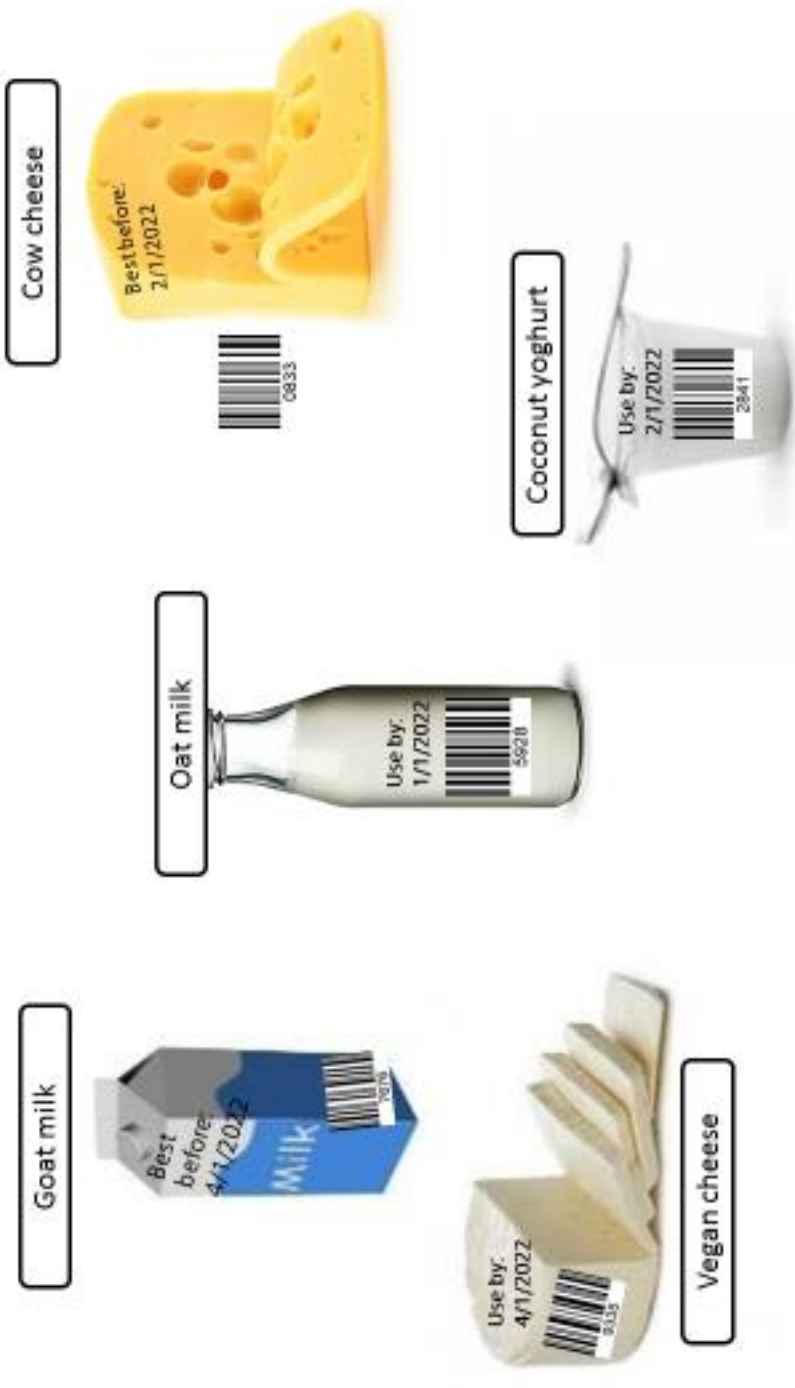
1. *Inspection of producers every 25 years.*
2. *Continuous monitoring and review of the production system, products and labels.*
3. *The production system protects the environment and uses as natural processes as possible, following the cycle of nature.*
4. *Animals have the following living conditions: they are enclosed without access to outdoor or grazing areas, and they eat industrial feed.*
5. *Producers use genetically modified (transgenic) products.*
6. *Restricted use of chemical pesticides, fertilisers and antibiotics on agricultural food products.*
7. *There is no maximal conservation of the eating and nutritional qualities of food through the use of chemical pesticides.*
8. *Products are traceable, which means that the source and destination of the products are known.*
9. *No account is taken of the impact on living beings that live in the area of production.*

Annex 4 - Jar 3

Often, we throw food away when it can still be eaten, or we could plan our shopping better so that it does not go out of date. Do you know the difference between the best before date and the use-by date? You can search online... (for example, at [The Difference Between Best Before and Expiry Dates \(foodsafety.ca\)](#))





















Here are some foods. Plan your eating for a five-day week, eating one of these products every day according to their best before and use by dates, and don't eat any food that has gone past its use-by date. The week begins on 1 January 2023.

What type of product cannot be eaten on Friday 5 January? The milk, the yoghurt or the cheese? Enter the code in the next lock.



Annex 5 - Jar 4

Two of the fruits and vegetables of this list are not locally produced or are not placed in the right season. The letters corresponding to the fruits and vegetables that should not be part of the list, in alphabetical order, are the code to open the next lock.

Spring	Summer	Autumn	Winter
 01 Artichoke  02 Strawberries  03 Asparagus  04 Mango  05 Peas	 06 Watermelon  07 Peach  08 Pear  09 Cabbage  10 Tomato	 11 Sweet potato  12 Pumpkin  13 Fig  14 Kaki  15 Pomegranate	 16 Kiwi  17 Cauliflower  18 Thistle  19 Lemon  20 Mandarin

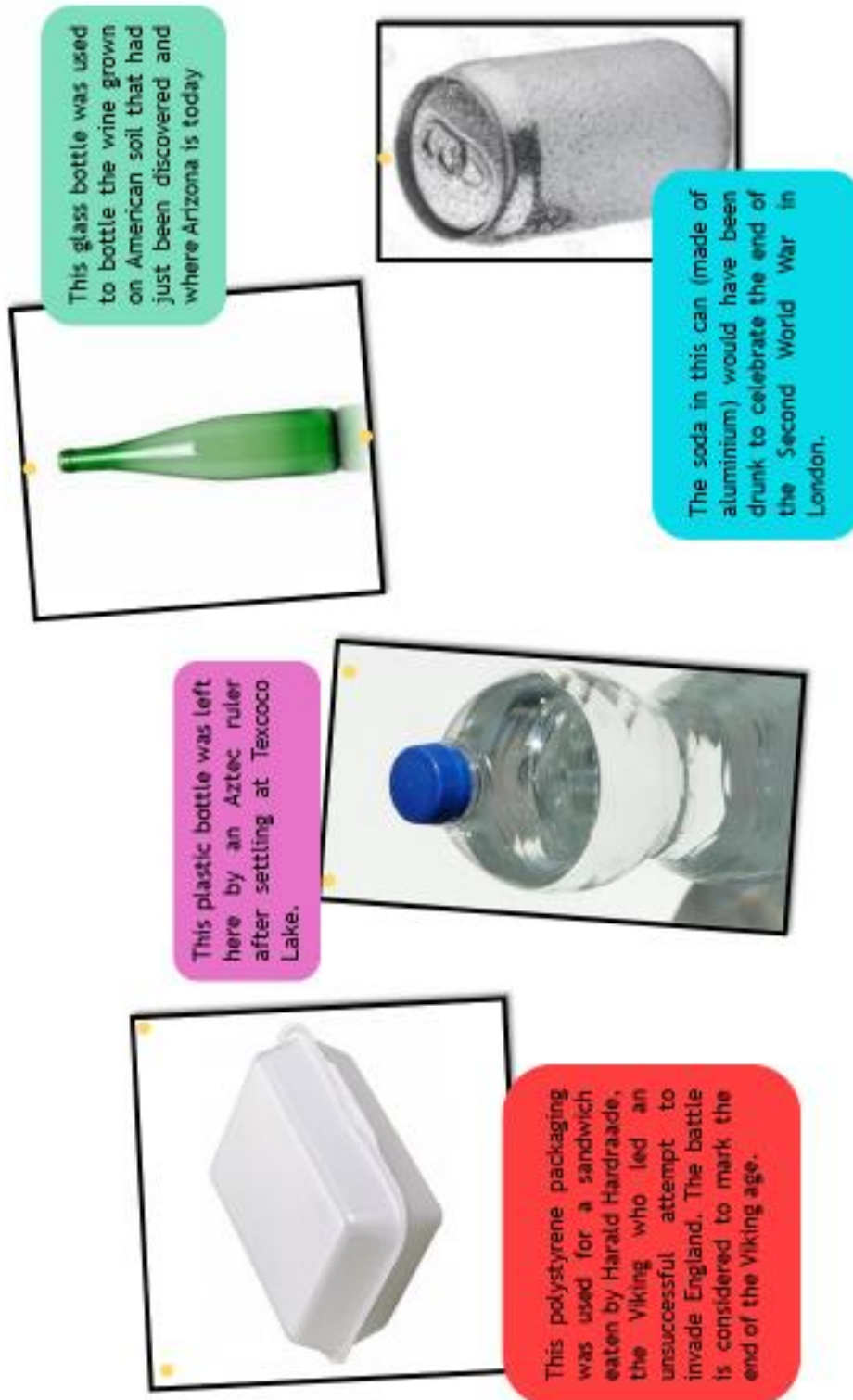
Annex 6 - Jar 5

How much packaging do we produce every day linked with our food? A lot? Tons! As well as the energy and environmental cost of producing and recycling packaging, the majority do not enter the recycling system. Do you know how many years it takes to recycle each of the packages you can see?

Let's exercise our imagination: instead of thinking about when in the future will packaging be degraded, **let's imagine they are degraded today... in that case, when would it have been produced?**

Link each piece of packaging and its clue to the time in history it is from, using the number of years it takes to break down.

Once you have them in chronological order, from the most recent to the oldest, take the **first letter of the names of the four places** where there are clues in date order, and you will have the combination for the lock.



This glass bottle was used to bottle the wine grown on American soil that had just been discovered and where Arizona is today

The soda in this can (made of aluminium) would have been drunk to celebrate the end of the Second World War in London.

This plastic bottle was left here by an Aztec ruler after settling at Texcoco Lake.

This polystyrene packaging was used for a sandwich eaten by Harald Hardraade, the Viking who led an unsuccessful attempt to invade England. The battle is considered to mark the end of the Viking age.

Years which need to be linked to each piece of packaging and clue, representing the number of years it takes to break down one packaging.













1945

1492








1325

1066







Annex 7 - Jar 6

Fresh product	Processed product	Ultraprocessed product
		
		
		
		
		
		



Fresh product	Processed product	Ultraprocessed product
		
		
		
		
		
		

Answer step 1

4 Bibliography

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