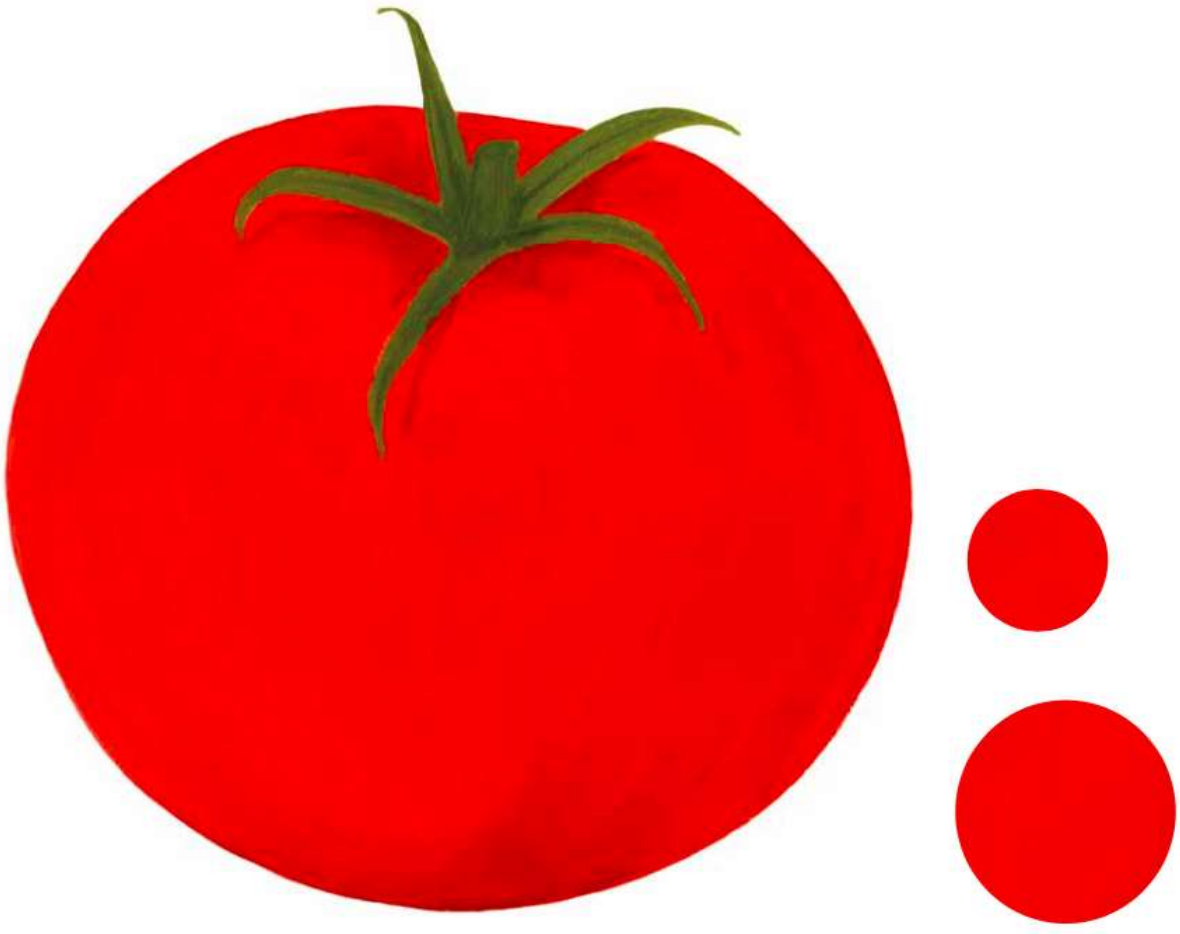
The Colourful World of Tomatoes

A teaching resource for primary schools



This material was created as part of the project "Global Schools –Learning for the Future". The project aims for changes at 3 levels:
Practice level: to support teachers and build their confidence and understanding so that they can integrate Global learning into everyday teaching practice.
Policy level: to embed Global learning into educational policies and the primary curriculum.
Society: to promote the Sustainable Development Global Goals, raise awareness and involve teachers, parents and the wider community in the issues.

17 partner organizations (NGOs, local authorities and universities) from ten European countries are working together as part of the project from 2015 to 2018. In the UK, the project is delivered by Cumbria Development Education Centre. The pan-European coordination of the project is carried out by the Autonomous Province of Trento (Italy).

Contents

Foreword

Tomatoes have become a central ingredient of British kitchens. Originating in South America, the tomato quickly became very popular due to its good taste and bright red appearance and in some countries is even known as the "apple of paradise". Tomato cultivation and trade are anything but heavenly in our globalized age: in order to be able to eat tomatoes in the winter, hybrid varieties are cultivated in Almeria, Spain, the world's largest greenhouse, and are then harvested 3-4 times a year. The water in this very dry region is pumped from deep underground. The working conditions of harvest workers, who are mostly migrants, are precarious. Added to this is the enormous use of pesticides, elaborate transport throughout Europe and significant plasticplans garbage dumps in Spain. And for what? For tasteless tomatoes in February, because the tomatoes ripen in warehouses and not under the Spanish sun. In addition, surplus tomatoes grown in Europe are being sold cheaply in African countries, making it harder for local farmers to do business. These are just a few aspects of the colourful world of the tomato. This resource allows children in key stage 2 to get to know the tomato from different perspectives: they look from outer space on Almeria, make a seasonal calendar for local produce, follow supermarket vegetables to far away lands, discover old tomato varieties and cook ketchup themselves. Depending on the ability of the pupils, the exercises can either be carried out as a group or can be worked on individually in the classroom. All exercises are based on the principle of global learning and are varied, interactive and experience-oriented. Thus it is possible for the children not only to look at this diverse topic from different perspectives, but also to immerse themselves in the tomato world. We hope you enjoy using this resource!

Tomato Salad Quiz

Age of students: key stage 2
Subjects: Geography, Literacy
Duration: 20 minutes

Overview:
When do tomatoes grow in the UK? Why can you buy tomatoes in winter? Where is Almeria and what does all this have to do with the Nightshade? This quiz is a good entry or graduation on the subject of tomatoes. On the basis of the questions raised, important points can be made about the vegetable economy in times of globalisation.

Preparation
Copy the quiz tomatoes onto a harder cardboard or paste them. For older children you can print five sets, for younger children one set is sufficient.

Instructions

Step 1
Divide the class into five small groups. Each group gets a set of quiz tomatoes.

Step 2
The students split the quiz tomatoes among themselves. They then read the questions in turn and answer them together. There is a letter next to each answer. They should write down the letters beside each answer that they choose, and write them down on a sheet of paper. You place the answered tomatoes so that you end up with three stacks, a stack of "1" answered tomatoes, a stack of "2" answered tomatoes, and a stack of "3" answered tomatoes.

Step 3
When all the letters have been noted, they are an anagram, and the children should try to work out what the ten letters spell (the letters, rearranged, spell TOMATO SOUP).

Step 4
After all students have submitted their questions and guessed the solution word, the answers goes to plenary. The teacher goes through one question after the other with the pupils and has the opportunity to give additional explanations at a suitable place.

Tip
If the students are not yet able to read well, the teacher can also read the questions individually and answer everything in plenary including explanations.

Infobox

History

The tomato plant originally comes from the Andes. The area of origin lies in a region that today extends over the countries of Peru, Bolivia and Ecuador. The Aztecs and Maya called the tomato "xictomatl", which means something like "swelling fruit". Tomatoes came to Europe in 1498 with the explorer Christopher Columbus. But for a long time it was considered a forbidden fruit, and was also called love apple. Because of their bright red colour, they were believed to be an aphrodisiac. That's why, for a long time, tomatoes were only found in ornamental gardens, admired for their pretty flowers. Only from 1900, was the tomato eaten in Western Europe, especially in sauces and soups. However, it became really popular only after the end of World War II.

Nightshades

Botanically, the tomato belongs to the nightshade family and is thus related to the potato, but also to plants such as belladonna and datura. The origin of the name "nightshade plant" is unclear and there are different interpretations (for example, the medieval use of the nightshade family as a remedy for nightmares or an indication of good luck).

Cultivation and trade

Tomato plants like to be warm and humid and therefore grow in Austria only in summer. Tomatoes are also very good for growing on the balcony. In the supermarket you can still buy tomatoes all year round. These come either from Austrian greenhouses or, most commonly, from warmer countries like Spain or Morocco.

Conflict-vegetables from Morocco

On many tomato packages you will find the label of origin "Morocco, Dakhla". The fact is that Dakhla is not in Morocco, but in Western Sahara. Western Sahara is a country that has been fighting for independence for decades and has been occupied by Morocco for 40 years. It is a politically and ecologically highly controversial growing area. The inhabitants, the Sahouris, are oppressed and live in refugee camps under extremely difficult conditions. In the middle of the desert, vegetables are being cultivated there by the Moroccan occupiers, who are falsely declaring European supermarket chains as "Morocco" and thus reinforcing the power situation in the area.

Vegetables from Spain

The Spanish region of Almeria is criss-crossed by huge greenhouses. These cover an area of around 26,000 hectares (roughly the size of Birmingham) and continue to expand. The Almeria region alone produces around 3 million tonnes of fruit and vegetables, of which around 1 million tonnes are tomatoes. Vegetables that do not have the desired shape or size will end up in the trash. In Almeria, harvest time is 3-4 times a year. The vegetables are harvested immature and then ripen in the truck. The immature harvested tomatoes are low in the healthy nutrient carotenoids. These can only form when the fruit ripens on the shrub. Almost all workers in the greenhouses are migrants (mainly from Morocco, Senegal, Mali, Romania or Bulgaria). They earn 20 - 30 euros per day. Migrants staying in Spain without a residence permit earn even less. The workers live in encampments away from normal homes. The encampments are usually self-made from pallets and plastic waste. The harvest workers send their money to their homeland, where they sometimes feed whole families. In order to irrigate the plants in the arid climate of Almeria, valuable groundwater is pumped deep out of the ground. But in Spain there is already a lack of water. Consideration is being given to building a 700km pipeline from northern Spain to Almeria.

Tomato quiz (with answers)

What is Almeria?
1) A high alpine pasture in Austria known for its tomatoes
2) A tomato variety
3) A region in Southern Spain, where the largest greenhouses in the world can be found

How many tomato varieties are there?
1) 2500
2) 25
3) 250

When can you harvest tomatoes in the UK?
1) July to September
2) November to January
3) March to May

Where do the tomatoes come from in winter?
1) Spain
2) Morocco
3) Australia

The tomato is a nightshade. What does that mean?
1) That the members of this family of plants only grow in the shade of the night
2) That the tomato is related to the potato
3) That the tomato tastes especially good when harvested at night

Where does the tomato originally come from?
1) From Peru in South America, because already the Aztecs and the Mayas tasted the tomato
2) From Greenland, because the traditional Inuit dish is noodles with tomato sauce
3) From China, because the Asians traditionally eat rice with tomatoes

How many kilograms of tomatoes does each person in the UK eat every year?
1) 5 kg
2) 8 kg
3) 10 kg

At what time of the year can you buy tomatoes in the UK?
1) In summer
2) In summer and autumn
3) Always

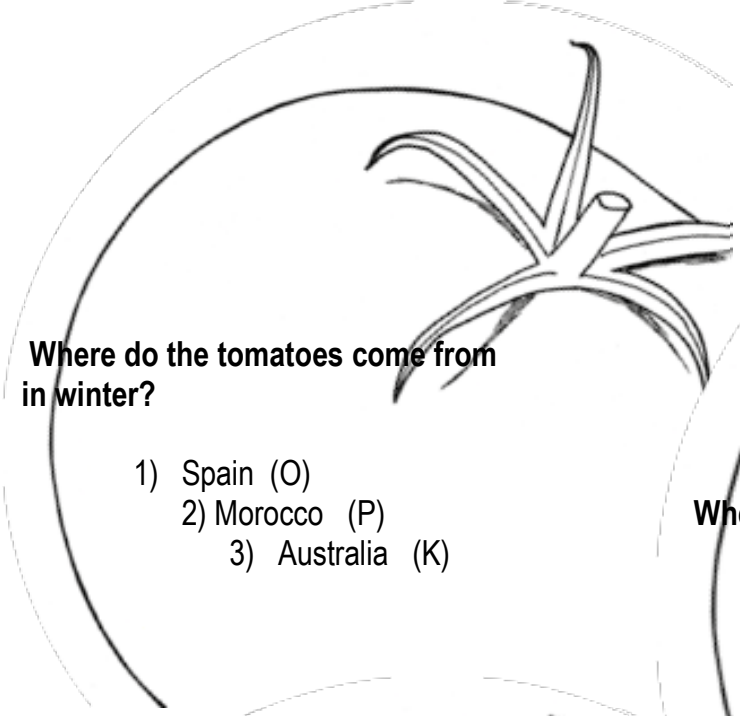
In the UK we harvest tomatoes once per year, in the summer. When are tomatoes harvested in Almeria, Spain, which are then sold abroad?
1) once a year
2) twice a year
3) 3 - 4 times a year

Tomatoes from the UK are harvested on time and sold straight away. Tomatoes from Spain are harvested green. Why?

1) Because this is a rare strain that tastes particularly good

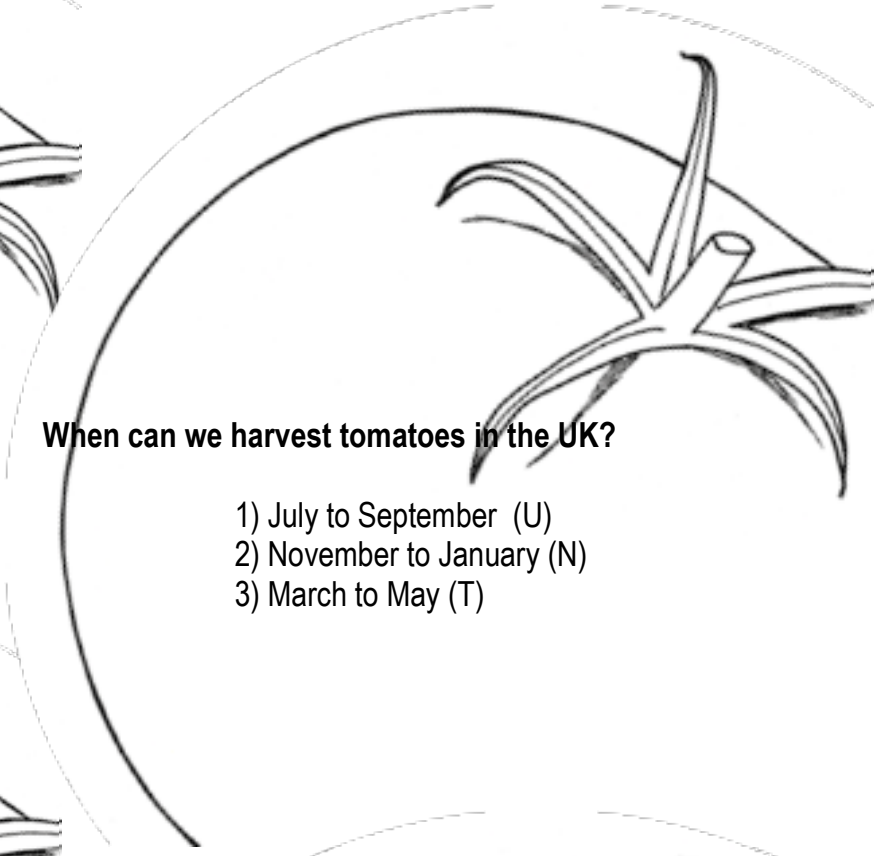
2) Because they are still on the road for weeks with the truck. Harvested ripe they would arrive rotten with us.

3) So that the good taste is created



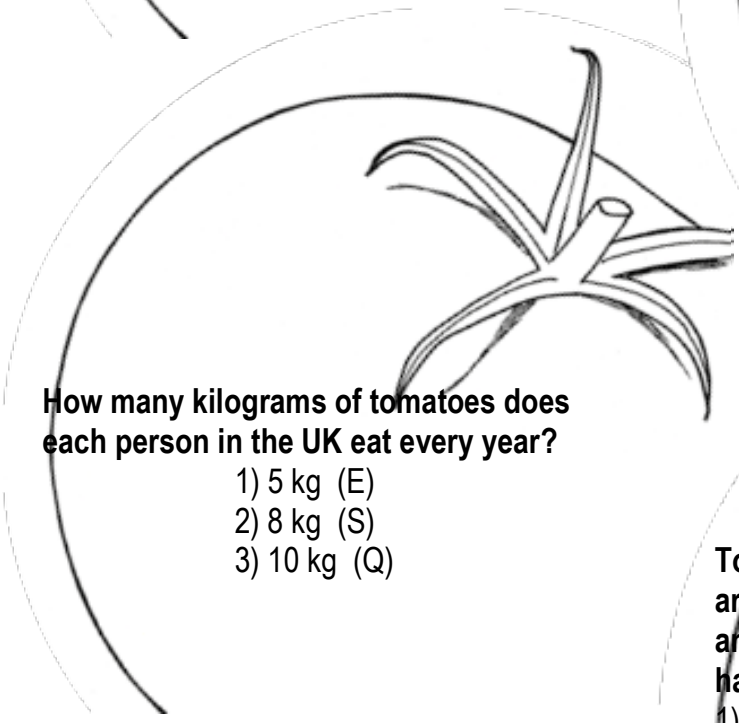
Where do the tomatoes come from in winter?

1) Spain (O)
2) Morocco (P)
3) Australia (K)



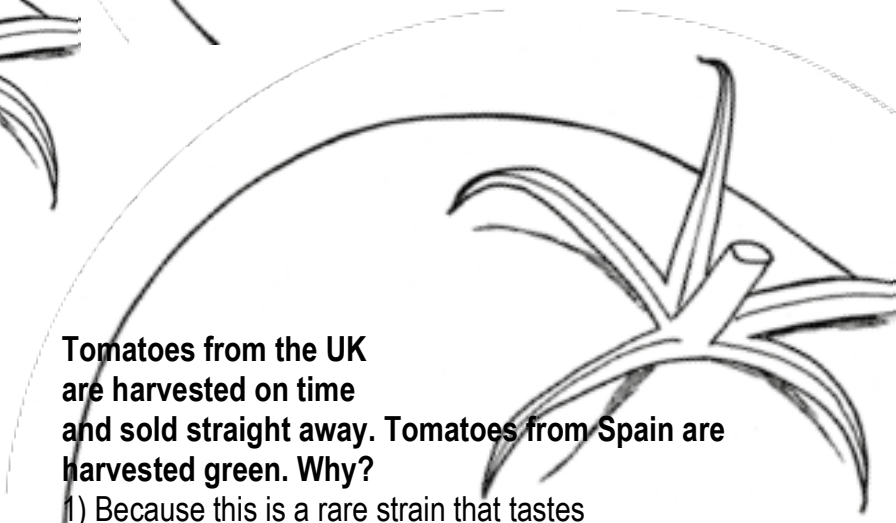
When can we harvest tomatoes in the UK?

1) July to September (U)
2) November to January (N)
3) March to May (T)



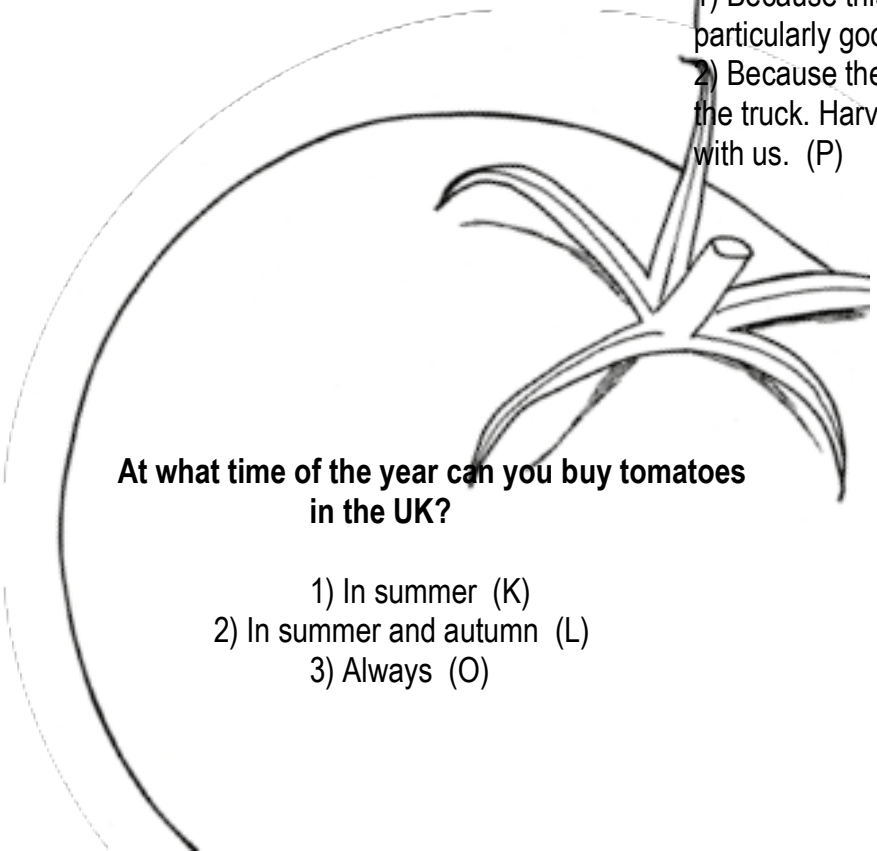
How many kilograms of tomatoes does each person in the UK eat every year?

1) 5 kg (E)
2) 8 kg (S)
3) 10 kg (Q)



Tomatoes from the UK are harvested on time and sold straight away. Tomatoes from Spain are harvested green. Why?

1) Because this is a rare strain that tastes particularly good (J)
2) Because they are still on the road for weeks with the truck. Harvested ripe they would arrive rotten with us. (P)
3) So that the good taste is created (W)



At what time of the year can you buy tomatoes in the UK?

1) In summer (K)
2) In summer and autumn (L)
3) Always (O)

Unknown tomato varieties

Age of students: key stage 2
Subjects: Art, Literacy
Duration: 20 minutes

Overview:
Tomatoes are popular across the world. If you ask what tomatoes look like, most people describe them the same way: round and bright red. This is what tomatoes from the supermarket look like. But tomatoes come in many different sizes, shapes and colours. 2,500 varieties are known. To contribute to the preservation of variety, this material gives an insight into the strange tomato world beyond the classics and makes you want to know the unknown.

Learning goals:
Pupils get to know unknown tomato varieties for them.
They recognize why it is important to preserve variety.

Preparation:
Print or laminate the large tomato images and variety descriptions (+ names) on thick paper. It takes four to five sets, depending on the size of the group.

Instructions:

Step 1 - Draw tomatoes
Ask pupils to draw a tomato, preferably lifesize and in a vibrant tomato colour. Afterwards, the images are shared and compared in the group and the topic is introduced through these or similar questions:
What different colours are the tomatoes, what different size are they? Presumably, the tomatoes will usually be round, red and similar size.
Why is that? Do all tomatoes look the same?
How many varieties of tomatoes do you know?
How many varieties of tomatoes are available at the supermarket?

Step 2 - Assign tomato photos
Well over 2,500 varieties are known, along with the countless varieties of breeders who were never registered and never received a name.
Divide the class into four to five small groups, depending on the class size. To illustrate the variety, now each group gets photos of different tomato varieties. The pupils now have the task of assigning the variety descriptions to the tomato photos.

Step 3
Together in plenary, the answers are given and discussed. If the exercise is used as part of a group activity, a solution sheet can be used in a self-check envelope.

Step 4
Discuss with the students together which varietiesare humorous or funny and which they would like to try. Or why the children would not try some varieties (perhaps because they have never seen a tomato in a particular shape or colour, or they think it looks "unappetizing" ...).

Reflection
The class discussion then goes into a joint reflection on the advantages of variety diversity (see info box).

Info box

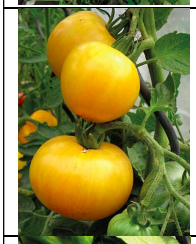
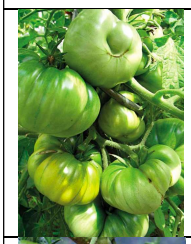
What is biodiversity?

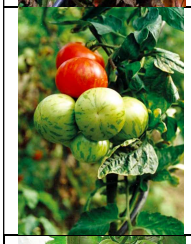
By biodiversity we mean the diversity of living organisms of all kinds.
This includes the diversity of species (the number of different animal and plant species), but also the diversity within a species. In the agricultural sector, the latter is synonymous with the variety of varieties. The modern economy and industrialized agriculture are threatening both species diversity and variety.

Why do we need biodiversity? And why is loss of biodiversity a problem?

- Ecological perspective: Biodiversity helps to keep ecosystems resilient by ensuring a diverse genetic potential to adapt to changing environmental demands. Example: In the middle of the 19th century, the potato blight in Ireland led to devastating famines. At that time only three potato varieties were cultivated in Ireland, the genetic diversity was too small to be resistant to fungus. The fungus was able to spread quickly and destroyed whole crops. At least one million people died as a result of the hunger, and around 1.5 million people had to emigrate. Particularly in times of climate change, biodiversity has an important role as it contributes to the adaptability of ecosystems to the consequences of climate change. For example, it is possible to fall back on varieties in the agricultural sector that endure more heat or greater drought.
- Economic and health perspective: Biodiversity has economic significance. The pharmaceutical industry, for example, is obtains active ingredients from plants, and new opportunities for use are being discovered. Many unexplored species hold great potential for possible remedies.
- Scientific perspective: Biodiversity serves as a basis for research. Food, pharmaceutical and industrial research benefit from diversity. Individual abilities of plants or animals serve as a template for technical innovations, such as the lotus effect: the stain-repellent surface structure of the lotus flower has been researched and artificially reproduced (for example, for house facades).
- Cultural and Ethical Perspective: Beyond Economic and Ecological Aspects: Diversity is a value in itself and makes our planet colourful and interesting. Any lost species, every lost species is a loss.

Tomato photos

	Andenhorn	• red paprika tomatoes • the thin skin is easy to peel • farmer's variety from the Andes (mountains in South America)
	Azoychka Yellow	• yellow meat tomato • tastes spicy and lemony • Origin: Russia
	Giant Zebra	• green-orange striped XXL beefsteak tomato • very spicy • plant bears especially long fruit, it is the beautiful "zebra tomato"
	Green Sausage	• green-yellow striped bottle tomato • not very juicy • is suitable as a sweet or sour ingredient
	Grüne von Helarios	• yellow-green meat tomato • the fruits have notches • bears many fruits
	Heidi	• small, bright red, egg-shaped tomato • mild-aromatic and good for sauces • Origin: West Africa
	Katinka	• orange cocktail tomato with many fruits • very sweet • one of the best cocktail tomatoes
	Power’s Heirloom	• yellow, thickbottle tomato • the sweet and aromatic tomato likes it very warm • Historic variety from Virginia (USA)

	Striped Roman	• red-yellow striped bottle tomato with elongated tip mild-aromatic
	Tlacolula Ribbed	• pink rose meat tomato with deep grooves, bag-shaped, • partially hollow, so it is suitable for filling • Origin: Mexico
	Tiny Tiger	• red-yellow striped cocktail tomato • spicy-aromatic • Origin: India
	Yellow Ruffled	• yellow paprika tomatoes with few big notches • mild aromatic • has few seeds and is hollow • very rare variety

Where do vegetables come from in winter?

Age of students: key stage 2
Subjects: Geography, Literacy
Duration: 20 minutes

Overview:
The demands of consumers are high: we want fresh, visually vegetables and fruits, available daily, 365 days a year. But tomatoes do not grow in the UK in winter. So what to do? Most vegetables are imported from warm countries in large quantities. And so the labels in the supermarkets read like the wish list of world travellers: Chile, South Africa and Egypt. In this lesson, the pupils themselves go on a voyage of discovery through the world and explore where tomatoes, strawberries and grapes come from in the winter.

Material:
Blank political world map, one for each group (you can download one here: www.tes.com/teaching-resource/world-map-3000292)
Packaging of various vegetables and fruits from different countries;
World map for children to refer to.

Learning goals:
The students learn that many foods come from distant parts of the world and have a long transport path behind them. They can be based on the world map.

Preparation
Collect packaging from vegetables and fruits on which the labels are easy to read and which come from different countries if possible. Well suited are grapes (Chile, South Africa), tomatoes (Morocco), cucumbers (Spain), pears (New Zealand), etc.

Copy the blank world map in appropriate number.

Instructions
Step 1
Divide the group into four to five small groups. Each group receives a large world map, packaging and sufficient worksheets (map).

Step 2
The pupils now have the task of identifying on the labels of the packaging where these vegetables come from. Then search for the country on the map and mark it in colour on your own little world map. If possible, the name of the land and the vegetable variety should be written next to it.

Reflection
Discuss these or similar questions with the students in a plenary session:
Why is the vegetable grown there?
How does it come to the UK?
Would there be opportunities to grow fresh vegetables in the UK in winter?
What does it mean when a vegetable is “in season"?

Tip
Browse in winter in different supermarkets for "far away" vegetables and fruits - everything is possible. But make sure that it makes a difference whether you take vegetables that are also available here (cucumbers, tomatoes, etc.) or if you pick fruits and vegetables that tend to only grow there and cannot be grown in the UK (bananas, mangos, etc.). The discussion that follows will be different and more varied.

Infobox

Tomatoes from Spain or from the UK?

Depends on when! Basically, it is healthier and more sustainable to obtain seasonal vegetables and fruits from organic farms and, if possible, to get them locally. However, those who do not want to give up tomatoes in the winter will find themselves in conflict: in ecological terms, a plant grown in Kent has a larger ecological footprint because it releases 2.5 to three times as much carbon dioxide as one from Almería, because the UK tomato greenhouses have to be heated in winter. In Spain, precious groundwater needs to be pumped up for irrigation. But if you look at the social aspects, the UK greenhouse has again the edge. Workers have collective protected rights.

Information on vegetables from Spain and Morocco can be found in the info box on p. 5f

Sources:

https://www.theguardian.com/environment/2010/aug/15/tomatoes-green-ethical-lucy-siegle

My seasonal calendar

Age of students: key stage 2
Subjects: Comprehension
Duration: 20 minutes

Overview:
In UK supermarkets you can buy tomatoes, peppers, strawberries, raspberries and many other vegetables and fruits all year round. Summer or winter, international trade gives customers the illusion that these products grow on our fields all year round. Every season offers its special fruits, including winter. It would therefore be ecologically and socially sustainable to get to know and appreciate the seasonal cuisine of the UK.

Learning goals:
Pupils learn that there are fruit and vegetables from the UK almost all year round and that the varieties differ according to the season. Pupils understand that food, irrespective of the season, has an impact on the environment and people in the UK and the global South.

Preparation
Copy and cut the vegetable cards, depending on the group size, copy four to five sets. Copy the empty seasonal calendar and the picture list of the vegetables / fruits (worksheet 1) in the appropriate number. Each pupil receives a total of 2 copies (1 x seasonal calendar and 1 x picture list). In addition, glues and scissors are needed.

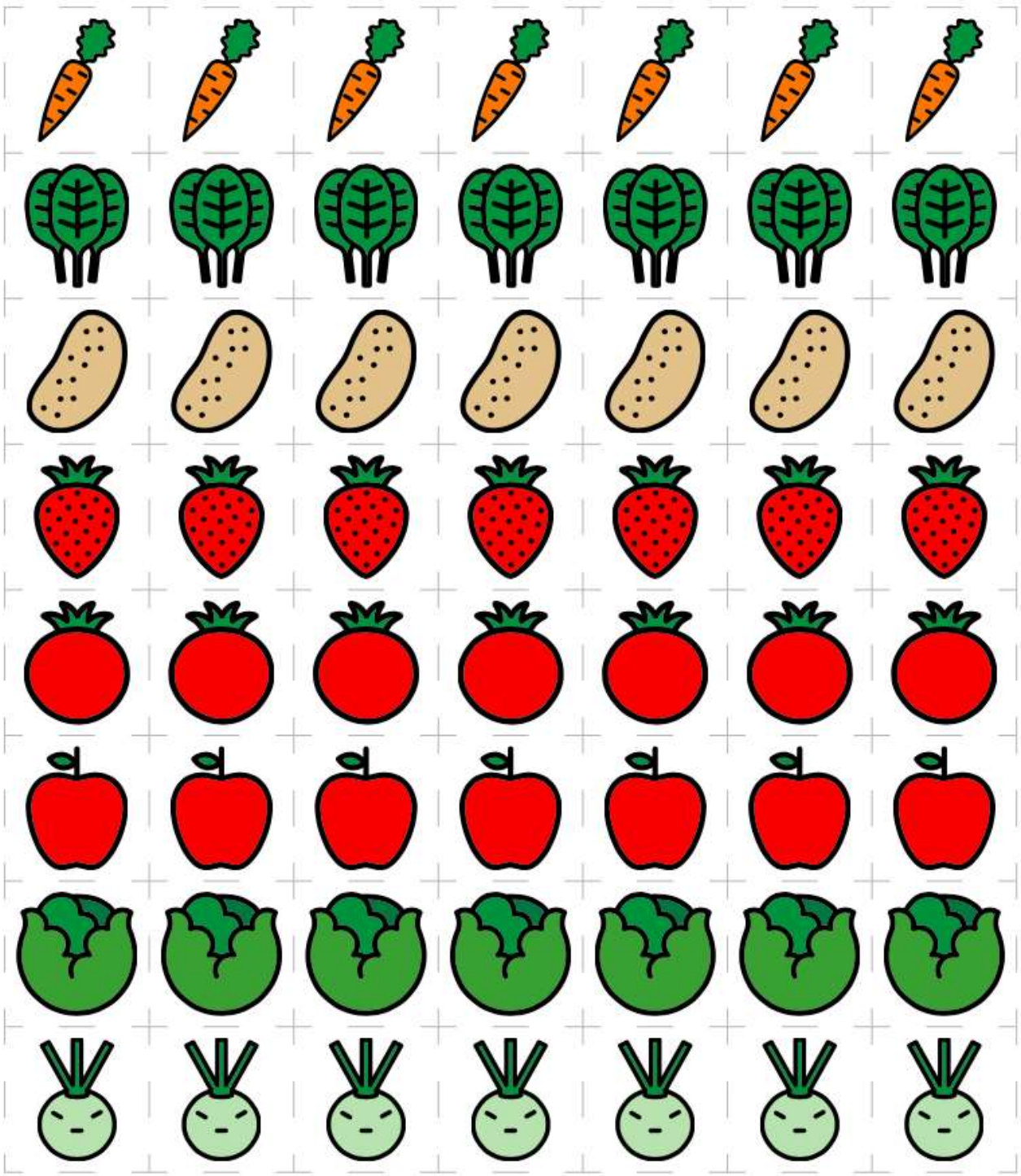
Instructions
Step 1
Divide the class into four to five small groups. Each group now gets a set of vegetable cards. In addition, each pupil receives worksheet 1 and an empty seasonal calendar. Make sure that there are enough scissors and glues on all tables.

Step 2
The pupils now have the task to read the cards together and find out which vegetables are harvested in the UKand which is available from UK supermarkets. If you know the time periods, each pupil cuts out the vegetables from sheet 1 and pastes them into the corresponding months of harvest time.

Step 3
After all students have finished their calendars, start with the reflection:
There are these vegetables / fruits also outside the harvest season in the UK, where do they come from?
How are the vegetables / fruits grown there?
How does it get to us?
How can it be that after many days / weeks of transport, it still does not get mouldy here?

Tip
You can also extend the calendar lots of different ways. You can create a large class calendar in whichimages are pasted each month, which vegetables and fruits currently are in season. There you could also find less well known varieties such as kale or Jerusalem artichokes. A large seasonal calendar, which remains in the classroom as a decoration, can be used to look up at common cooking activities (such as "healthy snacks"), which fruits or vegetables currently are in season.

Worksheet 1



My Season Calendar – what is growing in the UK?

Vegetable/Fruit	January	February	March	April	May	June	July	August	Septembe r	November	December

Fruit and vegetable cards

Spinach

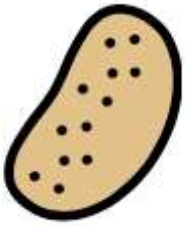
Originally from Asia. Should be eaten quickly after harvesting. Youcan also freeze it, and it will keep for up to 10 months. In the UK, spinach is harvested from June to October.

Kohlrabi

This vegetable is popular for its sweet taste. It is whiteand blue. The kohlrabi leaves are high in vitamin C. It is harvested from June to October.

Strawberry

The red fruit is related to the rose. Their fruits are botanical and do not bear seeds, but nuts. The nuts are easy to recognize as green dots on the red fruit. They are mature with us from May to September.



Potato

The versatile tuber has been filling people's bellies for many centuries. It is easy to grow and can be stored for several months, best in the dark and at 7 degrees. The harvest season is from September to December..

Carrot

People have been eating carrots for a long time. Originally from Asia, carrots come in a variety of shapes and colours, purple, yellow, white and dark blue varieties. It is harvested by us nearly all year round, from July through to February.

Tomato

Because of its colour and shape, the tomato was formerly called the Paradise Apple. In the garden, tomatoes can be harvested between July and September, but if you have a greenhouse, harvest can be from May to November.

Apple

The apple is related to the rose! It is also the most popular fruit in the UK. It can be stored for many months in a cool, dark place, so you can also eat apples in the winter. Harvesting time is between August and October.

Brussel Sprouts

This vegetable needs below zero temperature in order to taste really good. Because of the low temperature, the florets become sweeter. They are harvested in October to February, which is why they are part of a traditional Christmas dinner.

The Ketchup Story

Age of students: key stage 2
Subjects: Geography, Literacy
Duration: 20 - 30 minutes

Overview:
Fish and chips, English breakfast, sausages…real fans eat almost everything with tomato ketchup. But very few people know where ketchup actually comes from or which ingredients are found in it.

Learning goals:
The pupils learn more about the origin and ingredients of food.

Preparation
For the game "1,2 or 3", take three pieces of thick paper or cardboard and draw the numbers 1,2 or 3 on each. Have the questions with the answers ready.
For the second part of the activity, copy the 'story' for your pupils.

Instructions
Step 1
Prepare the classroom / room by sliding the tables and chairs aside to make space in the middle. Have the pupils at one end of the room together. At the other end, place the three boxes with the numbers at a sufficient distance on the floor.
Alternatively, you could also announce that the pupils with the most correct answers receive a small reward.

Step 2
Now read the first question aloud, and then the three answer options. Each pupil decides for themselves by standing by the number 1, 2 or 3.

Step 3
Give the correct answer and ask the children to go back. Continue with the next question.

Step 4
Then come together with the children in a circle (Chairs or floor). Distribute copies of the text "The Ketchup Story" and read together with the students the text that provides more information about the questions asked.

Ketchup - 1,2 or 3

Which of the following three foods is an ingredient in ketchup?
1) cheese
2) vinegar
3) carrots

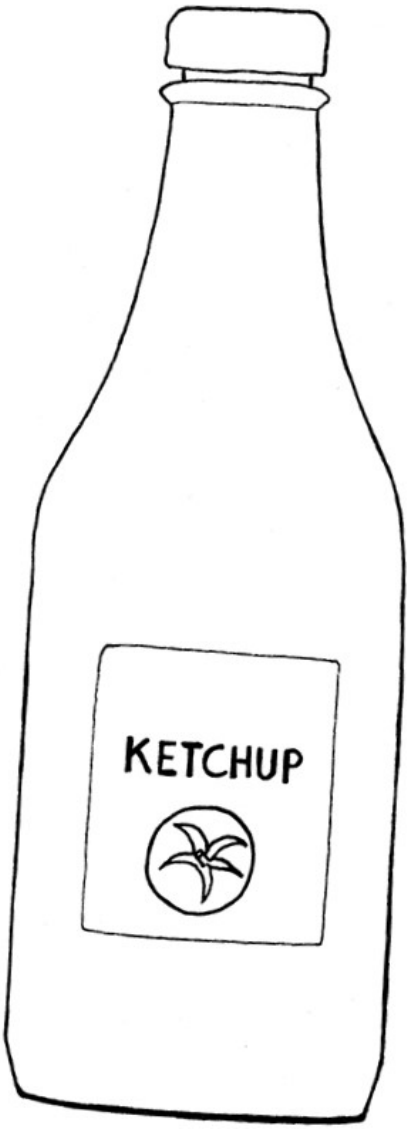
Where does the name "ketchup" come from?
1) from Africa
2) from Asia
3) from America

What does "ketchup" originally mean?
1) sauce
2) porridge
3) tomato

Where were tomatoes first added to ketchup?
1) In Germany
2) in the USA
3) in Indonesia

How did the tomatoes, which originated in South America, first come to our table?
1) Migratory birds ate the seeds and spread them on their journey to Europe. That's how the first tomato seeds came to us thousands of years ago.
2) When the first Europeans travelled to America, they became acquainted with various types of plants, including tomatoes, and brought them back to Europe on their return journey.
3) Similar to algae and seaweed drifting along the surface of the oceans, so too could grasses and, among other things, tomatoes migrate across the sea to the coasts of Europe.

The Ketchup Story



Hello, may I introduce myself? I am your ketchup bottle! You might have wondered how I'm made and where I come from. Today I want to tell you a little bit about it...

Scientists are still arguing about my origin. Some say I'm from Indonesia, a country in Southeast Asia. Others claim that China is my home. For a long time there has been a sauce made from soybeans that people in China eat with fish and poultry. But tomatoes are not an ingredient in this sauce. There it is called there "Ketsiap". Maybe a cousin of mine? So my origins are still a mystery. The tomatoes did not come to me until 1812. In an English cookbook from that time, there is a recipe for me with tomatoes. And then quickly people in the US fell in love with me. Oh, that was a nice time!Soon it was possible to buy bottles of me everywhere, in different sizes and colours. And of course in different flavours, because everyone used a different recipe. But of course, the main ingredient is always tomatoes! Add to that vinegar, salt, spices and unfortunately also sugar. I heard that it's not so good for your teeth and health, especially if you eat too much.

Try cooking ketchup yourself! That is sure to be fun!

I have to go back to the fridge, otherwise I will be too hot, bye for now!

Here you can see where Southeast Asia is located on the globe!

Sugar in ketchup?

Age of students: key stage 2
Subjects: PSHE
Duration: 15 minutes

Overview:
Ketchup is for many people, and particularly for children it is hard to imagine diet without it. Conventional ketchup varieties, however, contain a lot of sugar in addition to preservatives and artificial flavours.

Learning goals:
Students learn how much sugar is hidden in different finished products, even in those we do not perceive as sweet

Preparation
Print and laminate pictures in colour on thick paper or cardboard. Cut out the products and cube sugar pictures one by one. Every small group gets a picture set.

Instructions
Step 1
Each small group (2-4 students) now gets a set of pictures. They should decide for themselves how many sugar cubes are contained in each product and record their decisions by assigning the images to the appropriate cube sugar quantities. (Instead of the cards with the sugar cube information of course also real sugar cubes can be used. This makes the exercise even more vivid.)

Step 2
Share the right answers with the children in plenary.

You can also discuss other foods.

Answers:

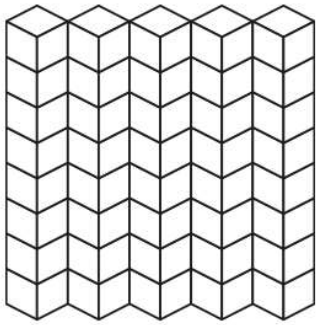
1 litre of Coca Cola:	40 sugar lumps
400g Nutella:	78 sugar lumps
750ml tomato ketchup:	61 sugar lumps
1.5 litres of orange juice:	40 sugar lumps
1 frozen pizza:	8 sugar lumps
375g cornflakes:	11 sugar lumps

Reflection
What surprised you most?
Which products would you expect to find more or less sugar? Why do you think so much sugar is used?

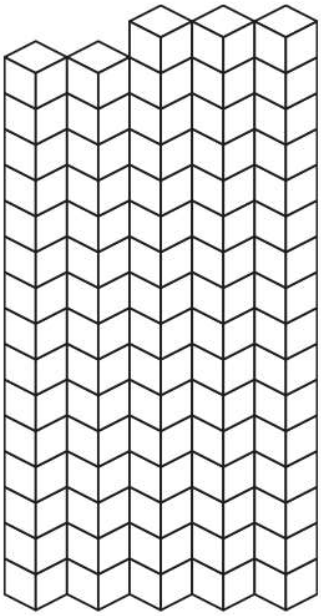
Ideas for further lessons
Excessive sugar consumption and its consequences. Discuss alternatives - prepare tomato ketchup yourself - see recipe below.

Infobox
Sugar has become an important ingredient in many processed foods. In recent decades, our sugar consumption has increased significantly. The following selected products are witnesses. Depending on the brand and size of the products, the sugar content varies. The indicated sugar cube values are therefore only approximate guidelines. Organic tomato ketchup usually contains only half as much sugar. Together with the children, the nutritional information on individual food packages can be researched.

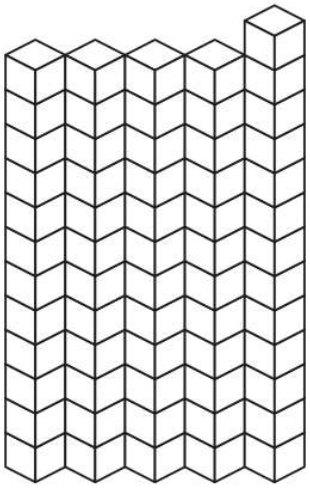

2½
Coca-Cola



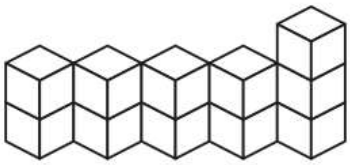

nutella
FERRERO
Hazelnut Spread with Skim Milk & Cocoa

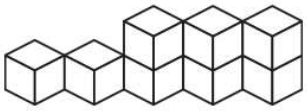



HEINZ
14
HEINZ
TOMATO
KETCHUP
NET WT 14 OZ (397g)

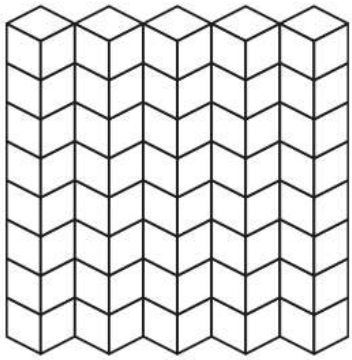



Goodness of a Simple Grain
100
PER 1 CUP SERVING
Kellogg's
CORN
FLAKES
The Original & Best
SINCE 1906
CEREAL
NET WT 12 OZ (340g)






32FL OZ (1 QT) 946ml
Orange
Juice
Nutrition Facts
Orange
Juice
Totally Natural
32FL OZ (1 QT) 946ml



Homemade Ketchup

Age of students: key stage 2
Subjects: Specialist lessons
Duration: 50 minutes

Overview:
Before the big brands moved into the tomato ketchup shelves in supermarkets, the red sauce was cooked by many people at home. This recipe was developed and tested especially for children, with as little sugar as possible and easy to try out.

Learning goals:
The students learn that Ketchup can also be made at home.
Pupils can solve a task together in the group.

Preparation

Copy the recipe for each student, or one per group on thicker paper. Provide the ingredients and equipment. The school kitchen or a mobile stove in the room are best suited. Ask all students to bring a small screw-top glass jar (empty jam jar or similar) the day before.

Instructions

Step 1

Divide the children into small groups (2 - 4 children per group) and distribute the recipes to the groups.

Step 2

The children start cooking under your guidance. If necessary, get a second supervisor for help. (The cooking is best done in the context of a station operation, since otherwise too many plates would be needed.)

Step 3

Try the ketchup together and divide it into small glasses so that all students can take home some of it.

Homemade Ketchup recipe

You need:

- 500 ml of tomato passata (pay attention to the EU organic seal)
- A small onion
- 50g icing sugar
- 20ml mild vinegar (apple cider vinegar is best)
- A pinch of salt
- A pinch of pepper
- Jars (or a bottle) in which you can fill the ketchup

Preparation:

Hop the onion into very small pieces. Then put the onion and tomato sauce in a saucepan and simmer over medium heat. Next, add icing sugar, vinegar, salt and pepper. Taste the sauce to see if you like it. The final step is to let the almost finished ketchup lightly simmer (about 20 minutes) until it has the right consistency.

Very important: Do not forget to stir, so it does not burn!

Then fill the ketchup in the jars or a bottle and leave to cool.

Bon Appétit!

About this resource

This resource was created by Suedwind (www.suedwind.at) and translated into English by Cumbria Development Education Centre (www.cdec.org.uk). It was developed as part of the EU funded 'Global Schools' project (www.globalschools.education). The project aims to strengthen global learning in schools.17 partner organizations (NGOs, local authorities and universities) from ten European countries are working together as part of the project from 2015 to 2018. In the UK, the project is carried out by CDEC. The pan-European coordination of the project is carried out by the Autonomous Province of Trento (Italy).