



ABOUT CHANGE, I AM CHANGE.

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INDEX

| | ACTIVITY | SUBJECT | PAG. |
|---|---|---|------|
| 1 | CLIMATE EXPLORERS,
WHAT IS HAPPENING? | <ul style="list-style-type: none">● Tutoring● Natural Sciences | 6 |
| 2 | THE CLIMATE IS
ALSO YOUR THING | <ul style="list-style-type: none">● Plastic and visual education | 10 |
| 3 | ECOVENGERS: THE
SUPERPOWERS OF THE 4Rs | <ul style="list-style-type: none">● Tutoring● Social Sciences● Natural Sciences● English Language | 12 |
| 4 | THE RYTHM OF RECYCLING:
THE SUPERPOWER OF THE 3Rs | <ul style="list-style-type: none">● Musical education | 14 |
| 5 | GUARDIANS OF
THE ENERGY | <ul style="list-style-type: none">● Tutoring● Maths● Plastic and visual education | 16 |
| 6 | MOVE MORE,
POLLUTE LESS | <ul style="list-style-type: none">● Technology● Plastic and Visual Education● Tutoring | 17 |
| 7 | SAY IT LOUD AND CLEAR.
THE PLANET NEEDS YOU. | <ul style="list-style-type: none">● Tutoring● Language● Foreign Language | 19 |
| 8 | SUSTAINABILITY ON
THE PLATE: THE JOURNEY
OF YOUR FOOD | <ul style="list-style-type: none">● Natural Sciences● Language● Plastic and Visual Education● Foreign Language | 21 |

INTRODUCTION

13 CLIMATE ACTION



In September 2015, the **2030 Agenda for Sustainable Development** was approved by the United Nations General Assembly. The project is structured around **17 Sustainable Development Goals (SDGs)** that address issues such as social injustice, poverty, and climate emergency.



Another fundamental aspect of this agenda is the importance given to the participation of all institutions and governments, companies, civil society, and each person from their citizen's condition.

At ONAY we are committed to working around this Sustainable Development model and embrace the 2030 Agenda as a roadmap to achieve an educated, conscious, and critical society that allows the construction of a more just and sustainable world.

Specifically, this educational proposal focuses on the **SDG13: Climate Action**. **Climate change** is a consequence of human activity and is threatening our way of life and the future of our planet. The purpose of this Objective is the adoption of urgent measures to combat climate change and its effects.

Climate change is affecting people and their property in rich and impoverished countries. The **consequences on the planet** are direct, causing the warming of the oceans, rising sea levels, and phenomena such as heat waves, fires, draughts, or floods. Furthermore, this situation entails important **social consequences** such as hunger, lack of water, on an increase in diseases. Climate change affects everyone, specifically the poor and the most vulnerable groups such as women, children or the elder.

With this material, students have the opportunity to approach this topic and investigate the complex interrelationships of global phenomena. Through different activities, linked to the curriculum of the last years of Primary Education, critical thinking and reflection on the causes and consequences of climate change are promoted, as well as creativity, search for solutions and the ability to take action and commitment towards social problems.

At ONAY we make ourselves available to the teachers who receive it to collaborate in the implementation of the material in the different courses, as well, as to respond to possible enquiries or demands.



1



● Tutoring ● Natural Sciences

CLIMATE EXPLORERS. WHAT IS HAPPENING?

1.1 Watch the following video and fill out the table.



What is climate change?
(Smile and Learn -
English, 2020)



| What is climate change? | Most important data | Who or what causes it? |
|---|---|---|
| <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
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1.2 Now, find out a little more...

What social consequences does climate change have? How does it affect people?



~~~~ **People who migrate or move:** What relationship do you find between climate change and migration?

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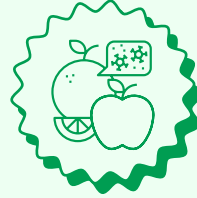
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~~~~ **Fewer fruits, vegetables and cereals are produced:** It is said that we are what we eat, but if we contaminate the source that feeds us, what can happen?



~~~~ **Water Access:** How do you think climate change affects our possibilities to have quality water?

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~~~~ **Serious health problems:** What types of diseases and health problems do you think climate change causes?



~~~~ **Conflicts and wars:** Why are conflicts generated between countries and communities derived from climate change?

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~~~~ **Increase in poverty:** Practically all problems affect the poorest or more vulnerable population the most. Do you think that climate change also affects them more? Why?

1.3 What are climate migrations? Fill in the gaps.

Climate migrations are all those displacements caused, direct or indirectly, by _____.

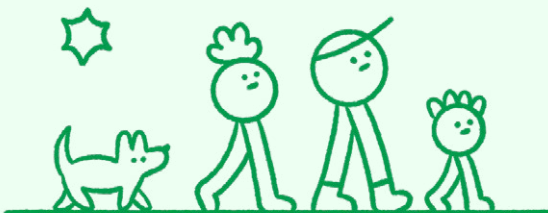
This causes many families to have to leave their homes and countries. For example:

They move _____, they do not do it because they want to live somewhere else but because they cannot continue living in their home.

But watch out! There are people and families who need to migrate, but do not have the _____ to do so. These people are trapped populations.

Do we have anything to do with this situation?





¿Which are the enriched countries?
Why do they produce more greenhouse gases?

Which are the impoverished countries?

1.4 The interconnected SDGs.

The SDGs include topics such as the elimination of poverty, the fight against climate change, education, women's equality, environment defence, or the design of our cities. All the objectives are interrelated, the actions we take in one area impact the results of others. therefore, each action must take into account the total of SDGs.



The Worlds Largest Lesson.
Global Goals. (The Global Goals, 2016)



Would you be able to relate the rest of the objectives to the “SDG13: Climate Action” that we are working on?

































2



● Plastic and visual education

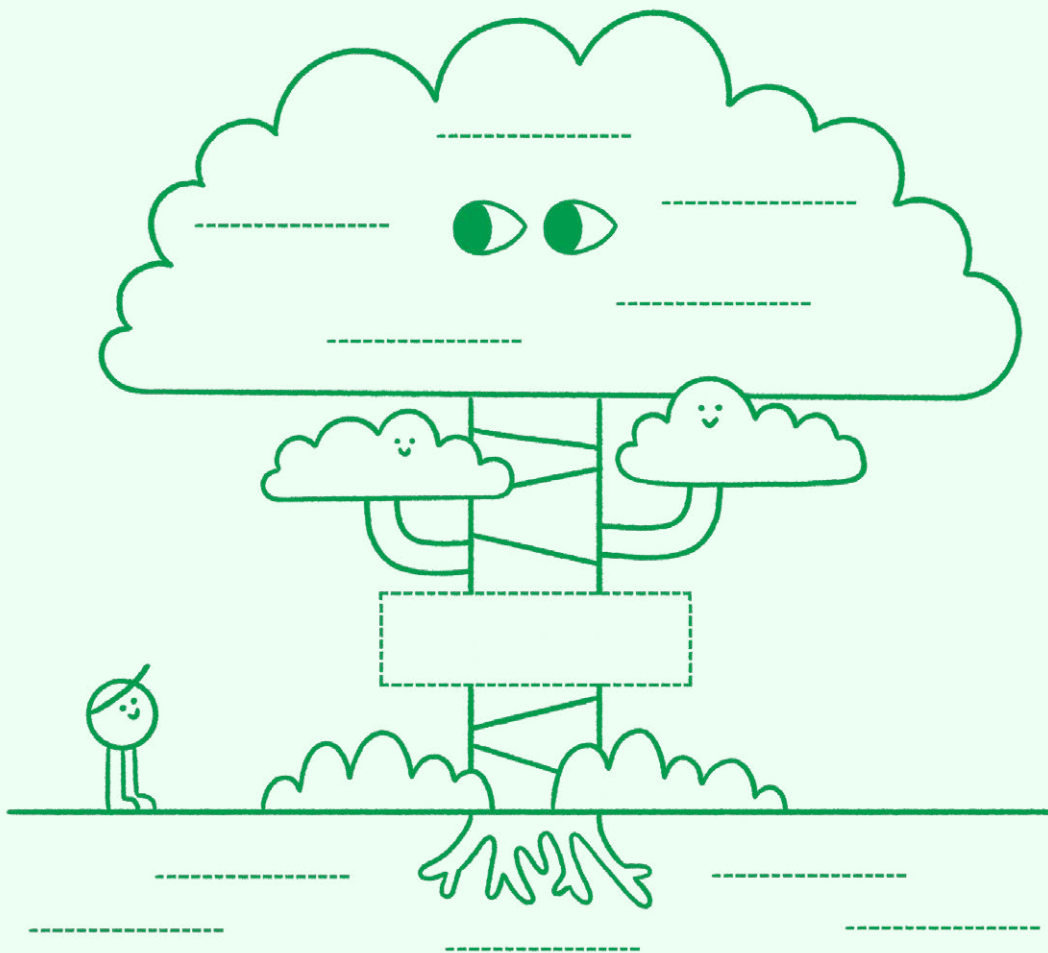
THE CLIMATE IS ALSO YOUR THING

2.1 Now that you know what climate change is and the consequences it has on people's lives, expand your knowledge about it and do a little research on its main causes and consequences. We suggest that you write it down in the following tree:




In the treetop we write the effects of the problem.

In the trunk we write the problem.

In the roots we write the causes.



2.2 On a piece of cardboard, make a comic that captures the information collected. You can do it however you want: collecting all the data, focusing on what you consider most important... You only have to take 3 factors into account:

- 1 People 
- 2 Climate change 
- 3 Impact on the world 



(El cambio climático explicado en cómic, 2011)



(Viñetas sobre el cambio climático, 2022)

3



● Tutoring ● Social Sciences ● Natural Sciences ● English Language

ECOVENGERS: THE SUPERPOWERS OF THE 4Rs

3.1 Did you know that we can help combat climate change with four superpowers that are in our hands? They are called “THE 4Rs”. Let’s play a game... could you say which superpower corresponds to each action? Join them!



We have the superpower of turning waste into raw materials for the creation of other elements.



We have the superpower to give a new life or find a new use for something we already have before throwing it away.



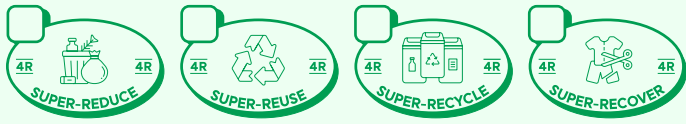
We have the superpower of creating less waste than the one we generate.



We have the superpower of not dumping waste in the same place, this superpower turns waste into a new different product.

3.2 What superpower do you think has been used to positively contribute to the following situations? Use one of them and explain why.

~~~~ Your grandma has given you a list of food she needs you to buy for her at the supermarket. Most of them are fruits and vegetables that are placed individually in plastic bags that are right there (tomatoes in one bag, avocados in another, potatoes in another, etc.). What can you do to not use so much plastic?




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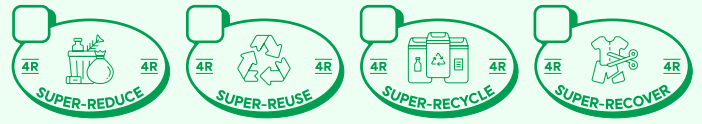
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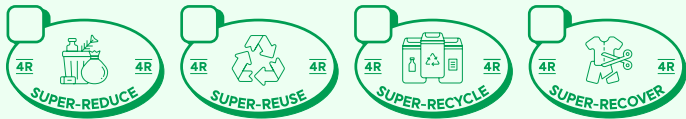
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~~~~ Mathi walks long distances to collect water since her community does not have it. In many cases, this water is polluted and causes her or her family to get sick easily. What can we do to help ensure that the water is not polluted?



~~~~ It's years since Sarah cannot go for a walk through the forest in her town as she used to do when she was little. Some men with tracksuits and large trucks cut down the entire forest. What can we do to stop so many trees from being cut down?




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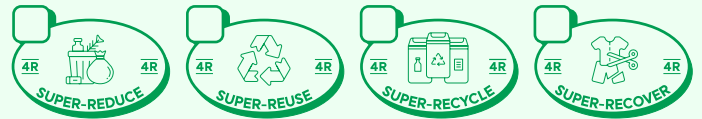
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~~~~ Aitor is thinking about starting a sustainable clothing company. To do so, he has thought about using existing waste as raw material for the production of his sweatshirts. What would you recommend him to do?



4



● Musical education

THE RYTHM OF RECYCLING: THE SUPERPOWER OF THE 3Rs

We travel the world through music...
How are musical instruments made
in other countries?



(OtroS MundoS, 2021)



(Richard, 2019)



4.1 Choose any place in the world and imagine which instrument could be typical there. Draw it and give it a name! you can do search on the internet to get to know the typical music instruments from the country you have chosen.



Country



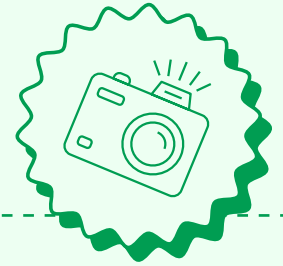
Chosen instrument

Describe it a little bit... What are the materials used for making it?, how does it sound?, what type of instrument is it?

4.2 It is your turn to create one! Choose one or more materials that you normally use at home in your daily life and recycle them. When you have enough, create your own musical instrument.



With your classmates, you can organize an exhibition in the corridor or at some place of the school and show your creations. You can leave here a photograph of the instrument or of the exhibition.



A large dashed-line rectangular box intended for students to upload a photograph of their instrument or exhibition.

5



• Tutoring • Maths • Plastic and visual education

GUARDIANS OF THE ENERGY

In order to commit with the climate emergency, it is especially important to save energy. The best way to do it is being aware of the energy waste that we generate at home every day.

5.1 Do you feel like putting the different appliances and devices usually used at home in the correct order according to consumption? Order them by placing a number from 1 to 12 on each card (from highest to lowest expenditure).

| | | | |
|------------------------------------|-----------------------------|-------------------------------|---------------------------------|
| <p>1000W
Dishwasher</p> | <p>2000W
Hair dryer</p> | <p>900W
Microwave</p> | <p>100W
Television</p> |
| <p>2000W
Electric radiator</p> | <p>9W
Eco lightbulb</p> | <p>35,5W
Mobile phone</p> | <p>700W
Washing machine</p> |
| <p>3500W
Air conditioner</p> | <p>30W
Radio</p> | <p>1200W
Horno</p> | <p>115W
Fridge</p> |

5.2 Sort the following list from most to least according to your own consumption: Which ones do you use the most and which ones the least?

- ① _____
- ② _____
- ③ _____
- ④ _____
- ⑤ _____
- ⑥ _____
- ⑦ _____
- ⑧ _____
- ⑨ _____
- ⑩ _____
- ⑪ _____
- ⑫ _____



5.3 Look at your first five devices and propose an action to reduce their consumption.

- ① _____

- ② _____

- ③ _____

- ④ _____

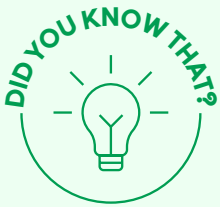
- ⑤ _____

6



- Technology
- Plastic and Visual Education
- Tutoring

MOVE MORE, POLLUTE LESS



By using cars less, cities can reduce greenhouse gas emissions, thereby reducing air pollution and providing a safer and more liveable urban environment for their citizens.

By avoiding car use we reduce pollution levels in cities, which could prevent more than 600 deaths per year and increase life expectancy.

6.1 Put up an image of the map of your city, town, neighbourhood... and mark the route you take each day to go from home to school. What means of transport do you use? How long does it take you?



Large dashed-line box for drawing a map and marking a route.



On foot



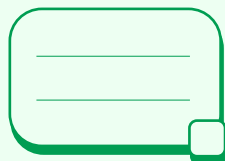
Bicycle



Car



Bus



Other



Duration:



Now that we have analysed how we get around.... Let's find out what means of transport everyone else uses!



But before that.... Look for information on the differences between using one type of transportation or another in terms of pollution and its consequences.

And what are the differences between some countries and others? You can watch this film "On the way to school":



On the way to school
(TIFF Originals, 2014)



6.2 Record a video with your classmates to share it and raise awareness. Interview your teachers, parents, students from other classes, cleaning staff, maintenance staff, your family, people on the street...



These questions can help you create the interviews and the video:

~~~~ How long does it take you to get from home to school/work?

~~~~ What mean of transport do you usually use to get around?

~~~~ Do you think you do it out of necessity or because it is convenient?

~~~~ Do you think people all over the world have the option to choose one mode of transportation or another?

~~~~ Do you consider that it is a privilege to be able to choose between a car or another mean of transport?

~~~~ Do you think that money influences a person's choice between different means of transport?

~~~~ Do you know what difference it makes, in terms of pollution, to use one mode of transportation or another?

~~~~ Do you think that you can make a difference by using less polluting means of transport?

~~~~ When you decide how to get around your city, do you think first about what is more convenient for you, or what is better for everyone?

# 7



● Tutoring ● Language ● Foreign Language

## SAY IT LOUD AND CLEAR. THE PLANET NEEDS YOU.

### 7.1 1. What conclusions have we reached? Perhaps these questions will help us...

How does the environment contribute to our well-being?

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What do we think about the environmental situation in the area where we live? Are changes necessary?

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Can we think of ideas to make production and consumption more environmentally friendly?

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Can we come up with something to improve recycling and reuse practices at home and in our city?

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Are there alternatives to using non-renewable energy?

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How can we reduce the amount of food waste?

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Is it possible to use means of transport that do not damage the environment so much?

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Do our actions matter? How can we improve them?

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In your opinion, what makes a community sustainable?

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**7.2** You are already experts on the subject... now we need to make others aware of it in order to improve our world.

**How can we do that?**



Who needs to be made aware?

- ① \_\_\_\_\_
- ② \_\_\_\_\_
- ③ \_\_\_\_\_
- ④ \_\_\_\_\_

What do they need to know?

- ① \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ② \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ③ \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

What can we change?  
Change alternatives.

- ① \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ② \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ③ \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Political impact is the participation of people through the defense of ideas and actions, aimed at influencing decisions that affect their community.

**TOGETHER WE ARE STRONGER!**



It is not enough to work on climate emergency only within our class, it is also important to know that we need others to all move in the same direction.

**7.3** We suggest that you write a letter thinking about the ideas you got in the previous exercise- think about who it can be addressed to (your teacher, the principal, the mayor...), what you want to achieve..., then write down your arguments.

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# 8














- Natural Sciences
- Language
- Plastic and Visual Education
- Foreign Language

## SUSTAINABILITY ON THE PLATE: THE JOURNEY OF YOUR FOOD

**8.1** Bring the label of 3 different foods you usually have at home and do some research on them.

You can paste them here!

|                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Food                           | <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  Type of packaging              | <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  Ingredients                    | <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <input type="text"/><br><input type="text"/><br><input type="text"/>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  Origin                       | <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                              | <p>How many kilometers has it travelled?</p> <input type="text"/> Km                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  How much water do they need? | <input type="text"/> L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|  How is it recycled?          | <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <br/>Glass         </div> <div style="text-align: center;"> <br/>Paper         </div> <div style="text-align: center;"> <br/>Containers         </div> <div style="text-align: center;"> <br/>Organic         </div> </div> |



## Why is it important to know where what we consume comes from?



If we reduce the distance between the place where food is grown and produced and the place where it is purchased, we help **improve the environment**: less packaging is used, there is no pollution due to transport, pollution is reduced, etc.

We also **contribute to the progress of society**: workers in small or local businesses earn money, we support local economy, more places are built for local production, the culture and the customs of a community are preserved, etc.

So that in **rich countries** we can consume the amount of meat that we currently use, it is necessary that our animals eat the forage and feed that are **harvested in impoverished countries**, while the population of those countries cannot be adequately nourished.



### What relationship and impact do they have?

By buying **fair trade products**, we guarantee that they have been grown taking into consideration all people's human rights. All people involved in the production have a good wage, no children work and the environment is protected.

If we **waste less food**, we help reduce greenhouse gas emissions and thus protect the environment. In addition, more food would be available and fewer families will be hungry. Currently, more than 815 million people suffer from malnutrition.

The food that ends up in the trash would be enough to feed 2 billion people, that is more than double the number of people suffering from malnutrition in the world.



As we have seen, where food comes from, how it is consumed, and its waste are all very important in terms of environmental, social, and economic impact.

It is important to learn to estimate the amount of food needed so as not to waste food, money, energy, etc. This can have an important impact on the environment.



**8.2** Now we suggest that you count the amount of food that is thrown away in the school canteen. This class or course project can help reduce food waste.

1 scale



3 garbage bags



1 record sheet



What do we need?

1

In the canteen there will be 3 garbage bags (with a bucket or support box) per group or course, each bag is specific for each dish (1st course, 2nd course, and dessert). This option is interesting to internally track food by type of dish.

2

Another option is to weigh everything together, either with a single bag or with the container, making a brief note of the dish that has the most leftovers and the one that has the least, in addition to the differential grams that help us notice which has the most leftover.

3

An end date for the project will be decided together and the registration sheet will be prepared in class with the data we consider relevant. The groups will record the Kg of food waste daily.

### Daily food waste analysis

~~~~ What food has been wasted the most?

~~~~ What could be the reasons?

~~~~ What could we do?  
~~~~ What could the school do?

In addition to the food that students leave on their plates, there is also a lot of food leftovers in the school kitchens that have not been served. Can you find out how much prepared and unserved food is left over? What is done with it? What could be done to reduce this amount and not waste it?



~~~~ Find out how much money the most wasted food of the day costs and calculate the money that may have been lost.

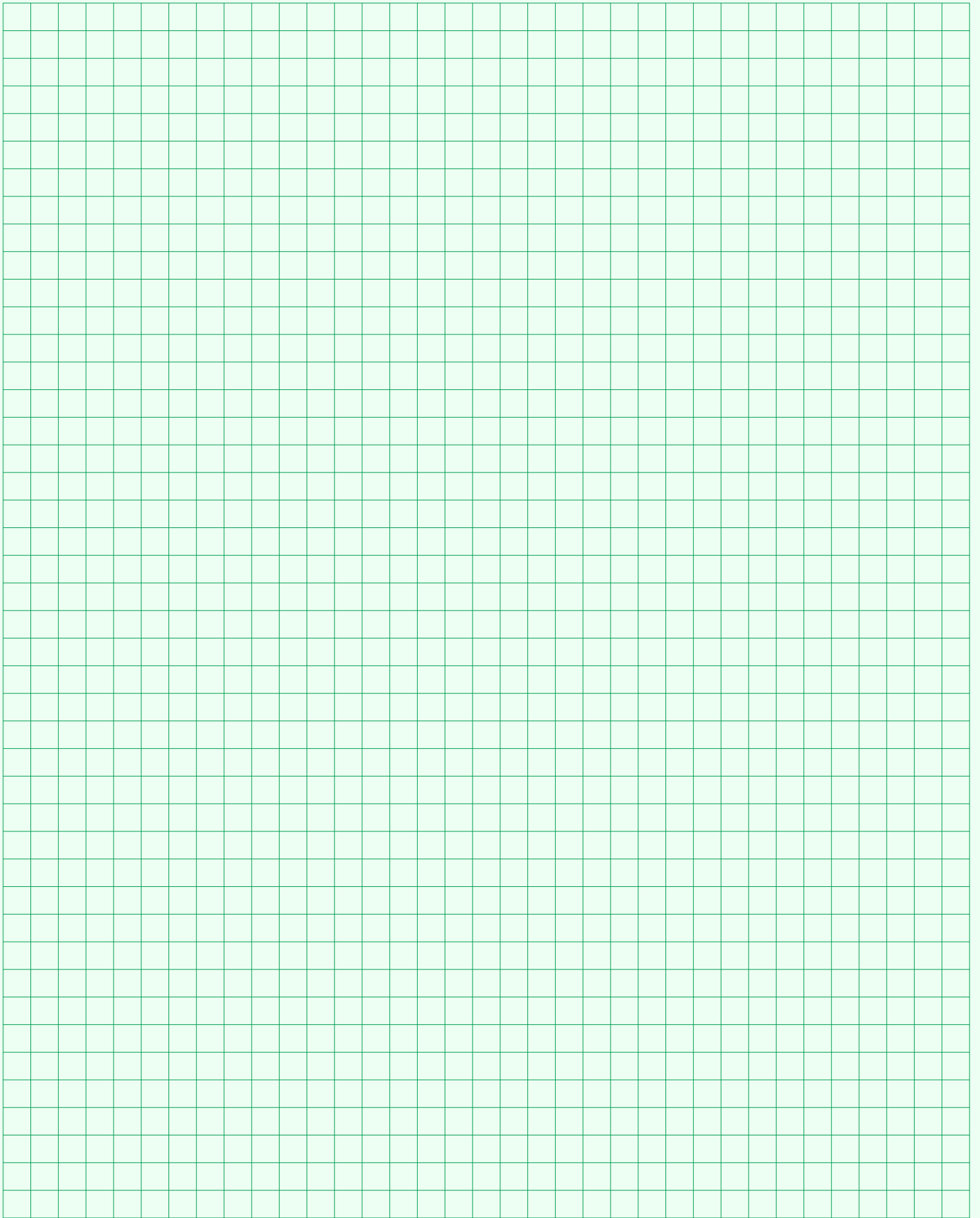
~~~~ Find out about the origin of the food and how many kilometres it has travelled.

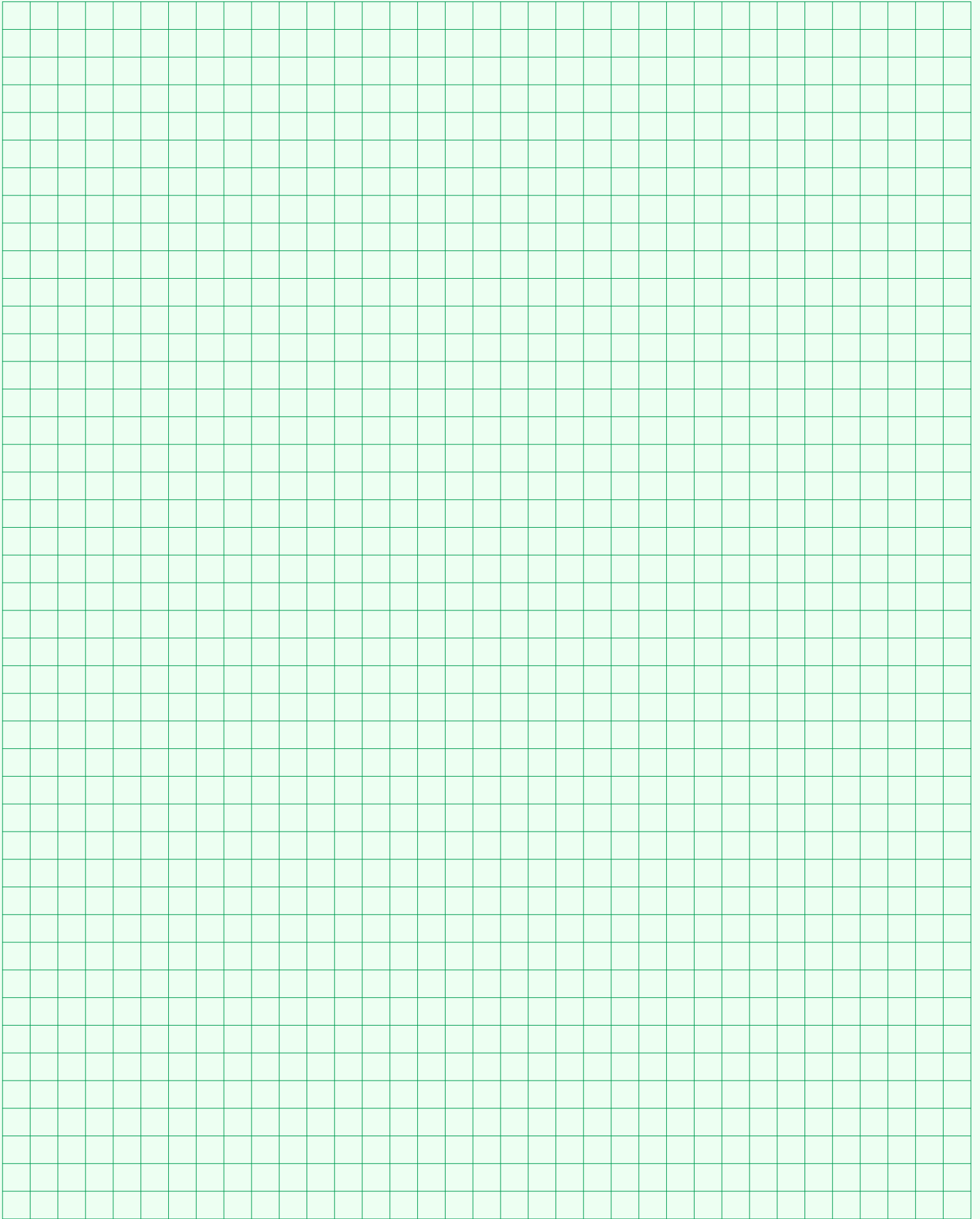


For example: if a 500g jar of chickpeas costs 1€, how much money has been wasted on chickpeas?









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