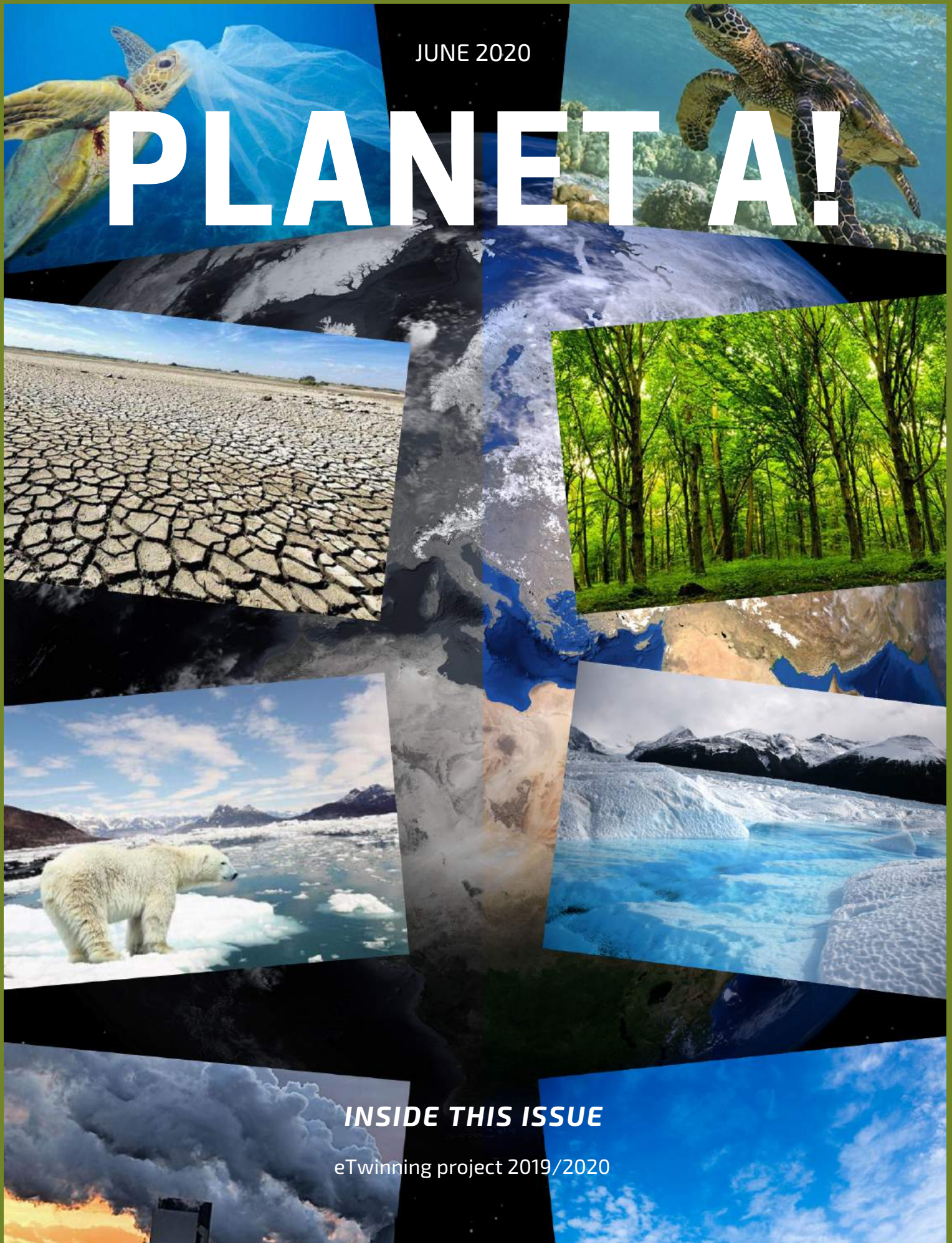


JUNE 2020

PLANET A!



INSIDE THIS ISSUE

eTwinning project 2019/2020

SINGLE ISSUE

PLANET A!

Project collaborators

St. Clare College

Secondary School, Malta

Teacher: Astrid Tonna

Students from the Social Studies team.

Agrupamento de Escolas

Nuno Gonçalves, Portugal

Teachers:

Alexandre Macedo

M^a Goreti Alves

Students:

Amélia S. Kyazi O.

Andreia C. Lara J.

Bernardo B. Mafalda M.

Bruna A. Margarida V.

Carolina L. Maria E.

Dinis S. M^a Leonor C.

Diogo G. Martim S.

Diogo A. Matilde L.

Isadora B. Njamy S.

Isis J. Pedro S.

João L. Petyo P.

João Ö. Rafael F.

João M. Tomás S.

João P.

IES Escultor Juan de

Villanueva, Spain

Teacher: Pablo Casado

Students:

Alba G. Mireia M.

Andrea D. Nerea E.

Candela S. Noelia T.

Claudia L. Nuno G.

Daniel M. Paola C.

Diego C. Paula C.

Iker P. Rubén M.

Juan O. Sol Z.

Luján V. Zaida B.

IES Riu Túria, Spain

Teacher: Isabel Garcia

Students:

Alex M. Luis V.

Bianca N. Marc M.

Diego O. Minerva M.

Ivan L. Naiala S.

Izan O. Naiara L.

Javier P. Omar Y.

Jessica M. Pau H.

Lucia M.

IES Llanes, Spain

Teachers: Lola Laguna and Lourdes Cuñado

Students:

Alberto L. Gérman P. Manuel C.

Ana D. Eva T. Marcos B.

Antonio D. Inmaculada G. Maria M.

Clara E. Isaac D. Nerea M.

Daniela P. Lidia B. Noelia V.

David C. Lucía M. Patricia D.

David V. Luna P. Paula G.

Eskişehir Fatih Fen Lisesi, Turkey

Teacher: Asuman Baş

Students:

Ahmet A. Ege A. Nisa D.

Alperen T. Egemen K. Oktay V.

Atakan Ö. Emine Ö. Ruveyda A.

Ayşe D. Ezgi D. Selin K.

Azra G. Fatma H. Semih D.

Bahar B. Irem B. Serifenur O.

Batuhan T. Irem S. Tümay K.

Berat A. Irem T. Vasfiye H.

Betül Z. Kerem Ş. Yaren G.

Bilgenur Ş. Leyla T. Yusuf D.

Boray Y. Mehmet T. Zeynep K.

Cemal Ş. Merve Ö. Ömer D.

Demir D. Meryem B. Şükrü S.

05

THE PROJECT

The beginning.

08

THE LOGO

The logo was chosen between several proposals.

13

UN NEW YEAR MESSAGE

Discussion of the UN Secretary-General New Year message.

18

DEAR FUTURE

generations: Sorry

22

WHY MIGHT OUR

lifestyle choices harm the environment?

53

GLOBAL ACTION ON CLIMATE CHANGE

Solutions to mitigate climate change.

06

THE PARTNERS

Who are the partners collaborating on the project?

10

HUMAN RIGHTS

Why is Climate Change a Human Rights issue?

16

CLIMATE CHANGE

Presentations created by the students from St. Clare College Secondary School.

20

MY ACTIONS DO NOT

harm the environment, do they?

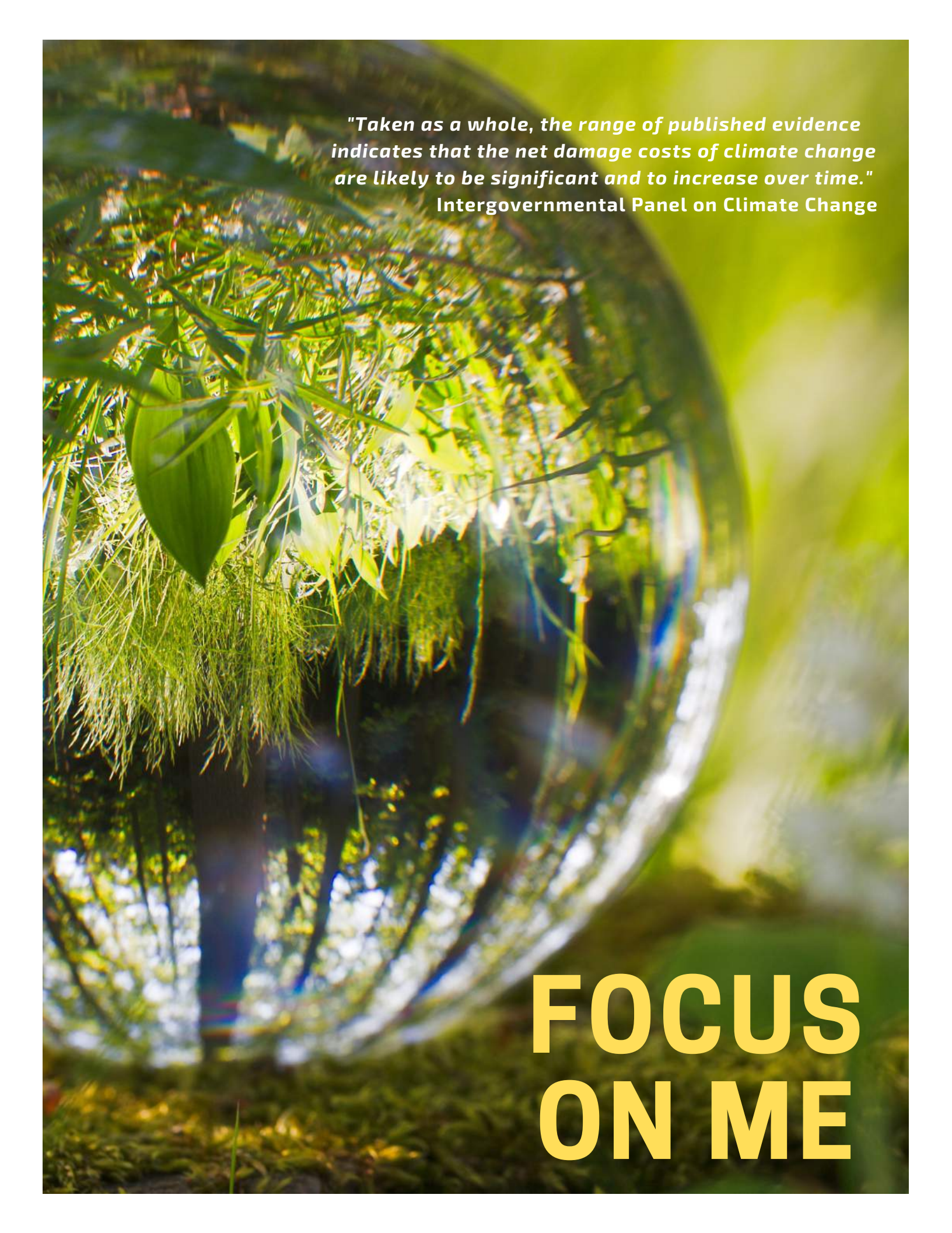
42

CLIMATE CHANGE AND PLANET EARTH

Celebrating World Days related to climate change.

57

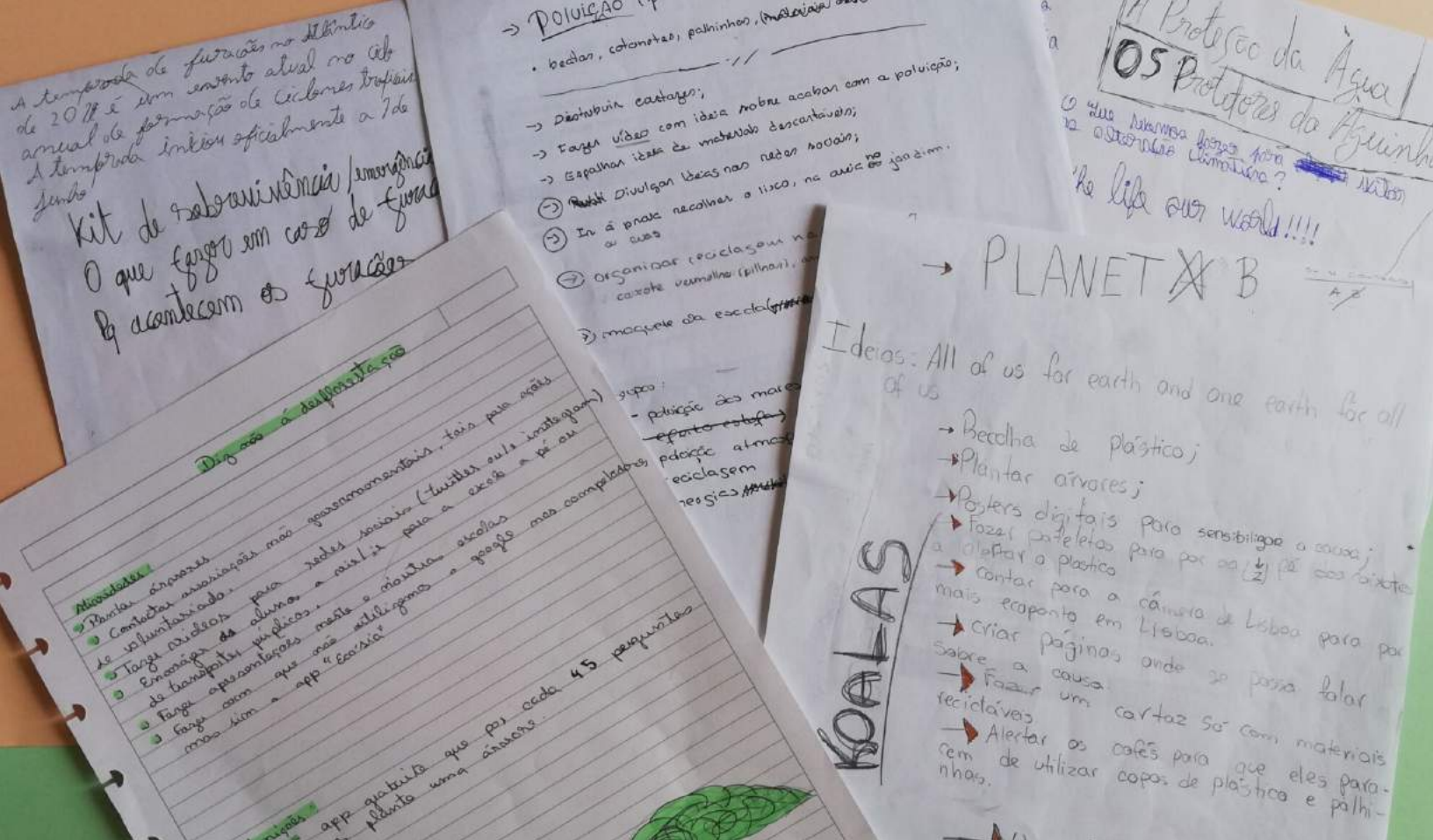
... MORE ABOUT THE PROJECT



"Taken as a whole, the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time."

Intergovernmental Panel on Climate Change

**FOCUS
ON ME**



THE PROJECT

The project was born inside the classroom, combining the different ideas suggested by the portuguese students.

Initially five teams proposed themes and a title for the project as well as some activities.

The main ideas were: pollution, storms, protecting water, deforestation and our planet - we don't have a Planet B. Well, all of these ideas could come together if we addressed it as climate change. This was the moment for teachers to step in. We proposed that the project main theme was climate change. So, what should be the title? One of the teams already thought of one, that with a slight modification became the project title - "Planet A!".

So, was the project ready to go?

We were far way from having the project planned. The next step was finding the partners from other European countries to join us on this adventure.

Teachers from Malta, Spain and Turkey joined the project. With some new ideas and activity proposals the project plan became complete. The main goal was to lead students to realize that each one of us, with our individual actions, contributes to environment problems (eg. air, water and soil pollution, deforestation and ultimately climate change).

The activities were proposed having in mind the students' initial ideas. However due to the Covid-19 pandemic we had some delays and the final step - taking action -, was not accomplished.

THE PARTNERS

One of the project's first activities was introducing the partners and the schools.

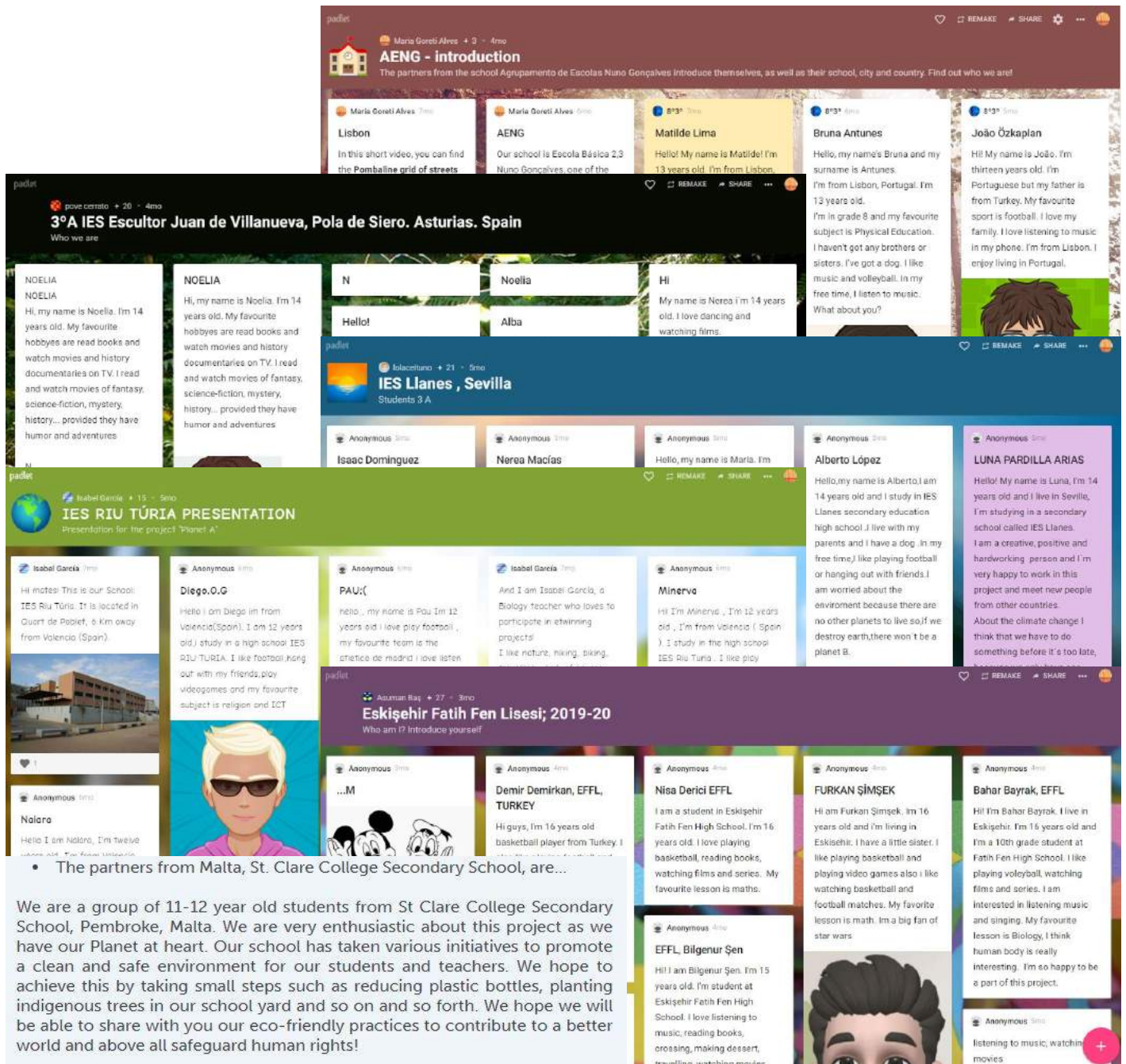


Figure 1. Partners' introductions.

Students and teachers introduced themselves on the padlets.

How to break the ice and make sure that students really knew each other?

The next step was to have the pupils finding, between the partners, a "twin". It would be someone with the same hobbies, likes/dislikes, similar physical appearance, that is, with something that they found interesting enough about the partner to name him/her their twin.

Find your "twin"

Now that most of us have introduced ourselves, read the information about the partners from different countries (review each padlet on page 3), and look for someone with the same hobbies/likes, or similar physical appearance - find your twin. Name your twin on the threads. Follow the model "I think my twin is because.....".

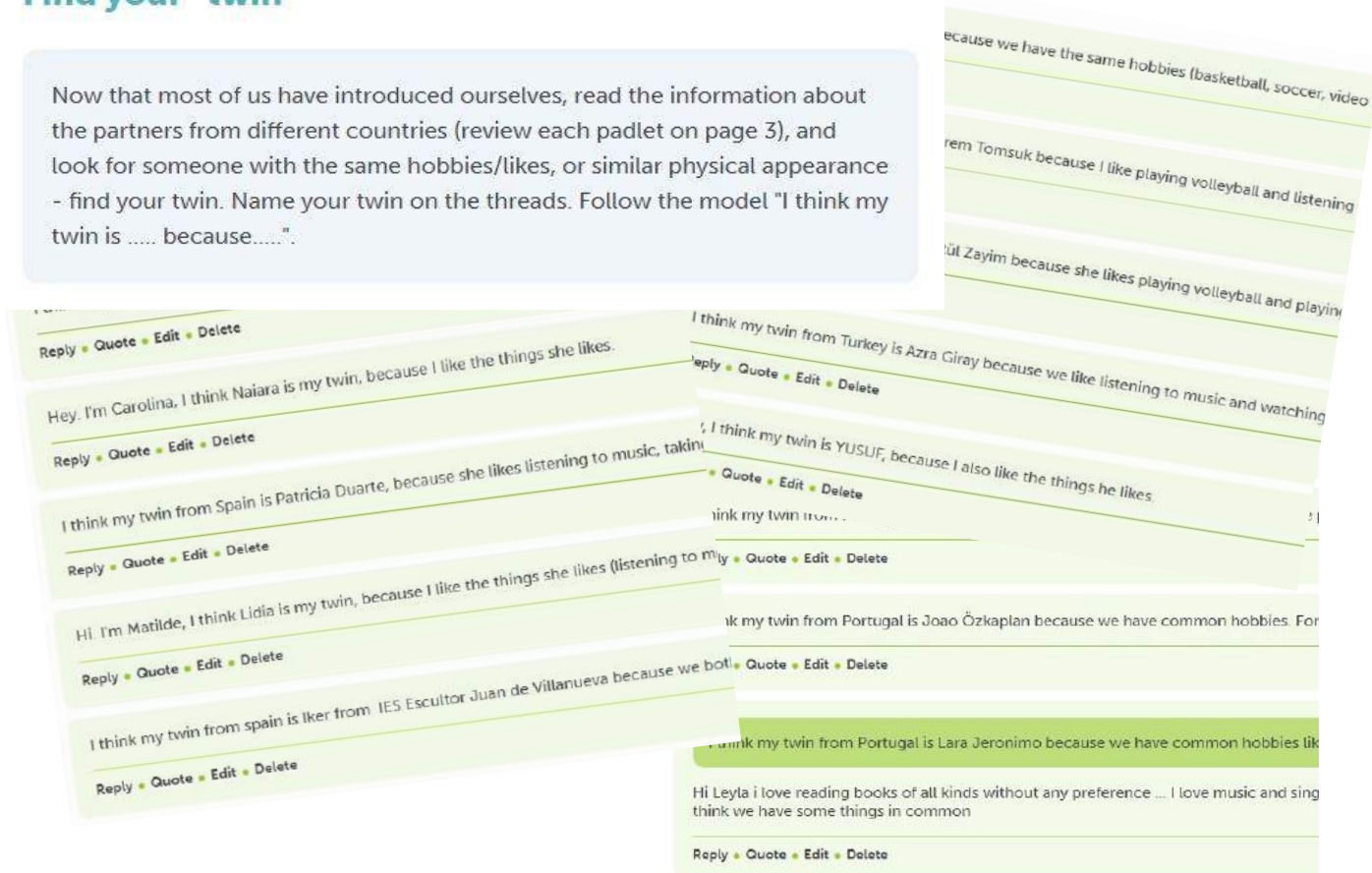


Figure 2. Forum: Find your "twin".

This was the first activity where the partners communicated with each other, by exploring the presentations, naming the twin and replying to the partners (forum, twinmail or leaving messages on their TwinSpace profile).

THE LOGO



The project was in motion. So, it was about time to create the logo! The students were very creative in their proposals and voted conciously on the best logo - the one that best symbolized the project. It was a tough choice!

Planet A! - let's choose our project logo

You can vote until three logos, adding the capital letters of your name and surname, your school and your country. Remember: the logo symbolizes the project!

Figure 1. Logo proposals.



Figure 2. Logo poll.



HUMAN RIGHTS

December 10, is a very important date - **Human Rights day**. At first sight it doesn't seem to have a close relationship with Climate Change. So, "*Why is Climate Change a Human Rights issue?*" was the right question to ask!

What is climate change?

The planet's climate has constantly been changing over geological time, with significant fluctuations of global average temperatures. However, this current period of warming has happened more rapidly than any past events. It has become clear that humanity has caused most of the last century's warming. This rapid rise is a problem because it's changing our climate at a rate that is too fast for living things to adapt to. These rising temperatures lead to extreme weather events, rising sea levels, shifting wildlife populations and habitats, as well as other impacts. The effects of climate change are already being felt now. Global warming has reached approximately 1° C above pre-industrial levels so far.

Do you agree or disagree?

- Climate change affects everyone equally.
- Climate change is a human rights crisis.
- Individual action is more important than government action in slowing global warming.
- There is nothing more that governments and corporations can do to fight climate change.
- Young people are responsible to find the solutions to the current climate crisis.
- Climate change will affect my rights to housing, water and sanitation, food, health and other human rights.



Figure 1. Students from AENG.



Figure 2. Students from IES Llanes.

Do you know Marinel Ubaldo, from the Philippines?

When she was 16 years old Typhoon Yolanda, one of the deadliest typhoons on record, destroyed her village in Eastern Samar and over 6,000 people died in the Philippines alone, while millions lost their homes.

The students reflected on her life story.

At AENG (Portugal) the Librarian teacher created a video establishing the relationship among Climate Change and some Human Rights which was later on discussed.



Figure 3. Video about human rights and climate crisis.

Christmas and New Year were coming!

Inspired by the tradition of a Portuguese Scientist, Botanist and Teacher - Jorge Paiva, who creates Christmas postcards alluding to environment issues, the students created Christmas and New Year postcards with simple messages about Climate Change.



Figure 4. Christmas cards created by students from AENG.



Figure 5. New Year cards created by students from EFFL (Turkey).

These activities were adapted from:

<https://www.amnesty.org/en/get-involved/write-for-rights/>;

<https://www.amnesty.org/download/Documents/ACT3007662019english.PDF>

UNITED NATIONS NEW YEAR MESSAGE

António Guterres, the UN Secretary-General, highlighted Climate Change as "a clear and present danger", but this was also a message of hope addressed to the world's youth. 2020 marks the 75th anniversary of the UN and the beginning of a Decade of Action for the Sustainable Development Goals.



Figure 1. Unites Nations New Year Message.

The students watched the video and reflected about this message. They shared their thoughts on the Forum, where there were great contributions. The students made a great work and we briefly highlight some of their ideas.

1. Most students agree that **"We enter 2020 with uncertainty and insecurity all around"**.

Berat, Irem B., Mehmet and Fatma highlighted the ongoing armed conflicts - **wars**. Ömer, Emine, Lucia M., focused on the Australian fires. Zaida B. draws our attention to how dangerous our planet might become because of climate change. On the other comments there is a strong feeling that the students can make a difference and that with so many crises, catastrophes and problems they don't know what to expect from this changing world. They do know that **it's time to do something about it**.



Figure 2. Poll results - Forum.

2. **"Climate change is not only a long-term problem but a clear and present danger."**

The students reflected about this message and for them our future is in danger (most students from Portugal), because *"our planet became less livable"* (Berat A.) and *"the situation is getting worse every day"* (Irem B. and Marc M.).

Izan O., Minerva M., Ivan L., Naiara L., Javier P., Alex M., Jessica M. and Omar Y. named some effects of climate change:

- the poles are melting;
- temperatures are rising;
- heat waves and droughts; species are being extinct;
- CO2 emissions;
- air pollution;
- destruction of ecosystems;
- ...

The students leave us a message "*this has to change*" (Omar Y.), "*we are strong (...), united we can help the world*" (Paula G.), "*stop climate change*" (Ömer D.).

3. World's young people role

Most students agree that young people are the greatest source of hope! Why?

- young people can produce new ideas to solve problems (Irem S.);
- the environmental problems will be more intense when we are adults (Bruna A.);
- in a few years they (young people) will be able to change the planet (Tomás S.);
- young people must protect the world for their own future (Fatma H.);
- young people have a lot of good thoughts and they can solve the problems (Paula G.);
- the future is in the hands of young people and young people should be supported in this regard (Ömer D.);
- we know all the problems (...) and a lot of solutions too (Yaren G.).

However, Iker P. reminds us that even "*many young people*" all together, might not be enough to "*change the world easily*"!

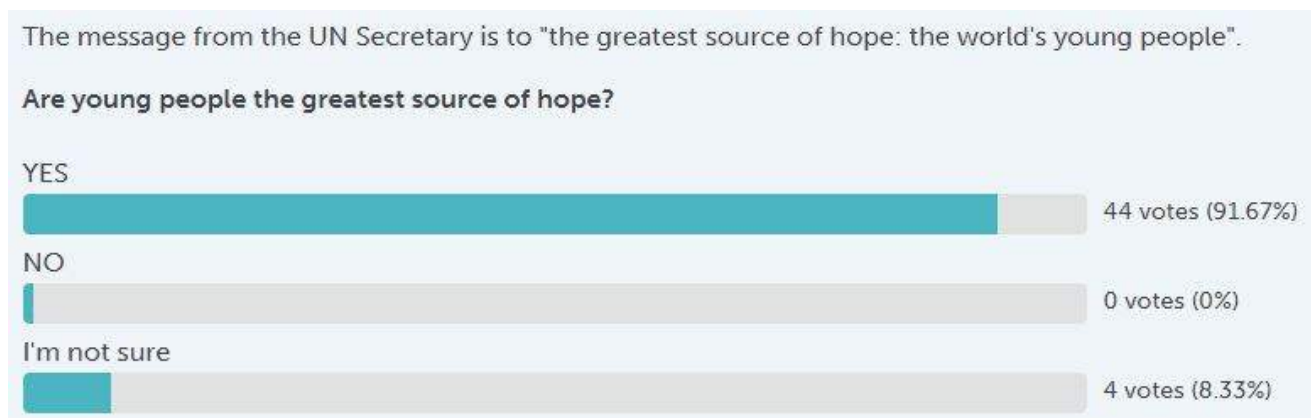


Figure 3. Poll results - Forum.

4. Decade of action

Young people should keep speaking up, because *we should fight for our planet* (Bruna A.), *a lot of people that don't realize that climate changes is a real problem* (Pedro S.), *to raise awareness about climate change* (Andreia C.), *if we stand together we are stronger* (João M.), *until something happens* (Lara J.).

The students also believe they, as young people, should keep thinking big, because that way they can *change everything* (Berat A.), *find more ideas to save the planet* (Tomás S.), *reduce global warming* (Yaren G.) *as the future depends on us* (Leonor C. and Fatma H.).

A few students identify themselves with keep pushing the boundaries and keep up the pressure in order to change something (Ömer D., Carolina L.).

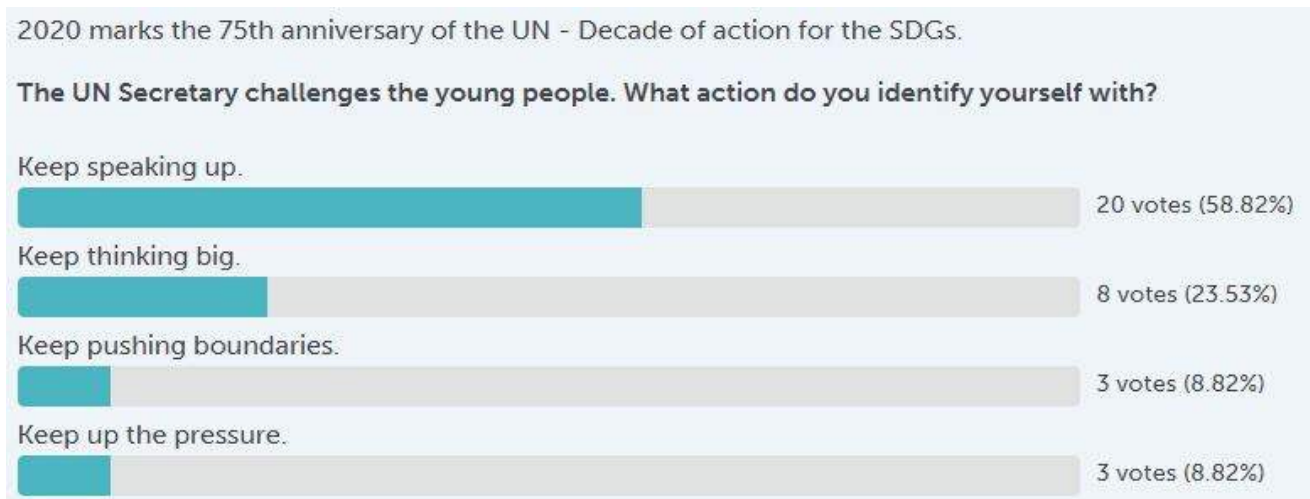


Figure 4. Poll results - Forum.

CLIMATE CHANGE

The students from St. Clare College Secondary School published some presentations to introduce the Climate Change concept.

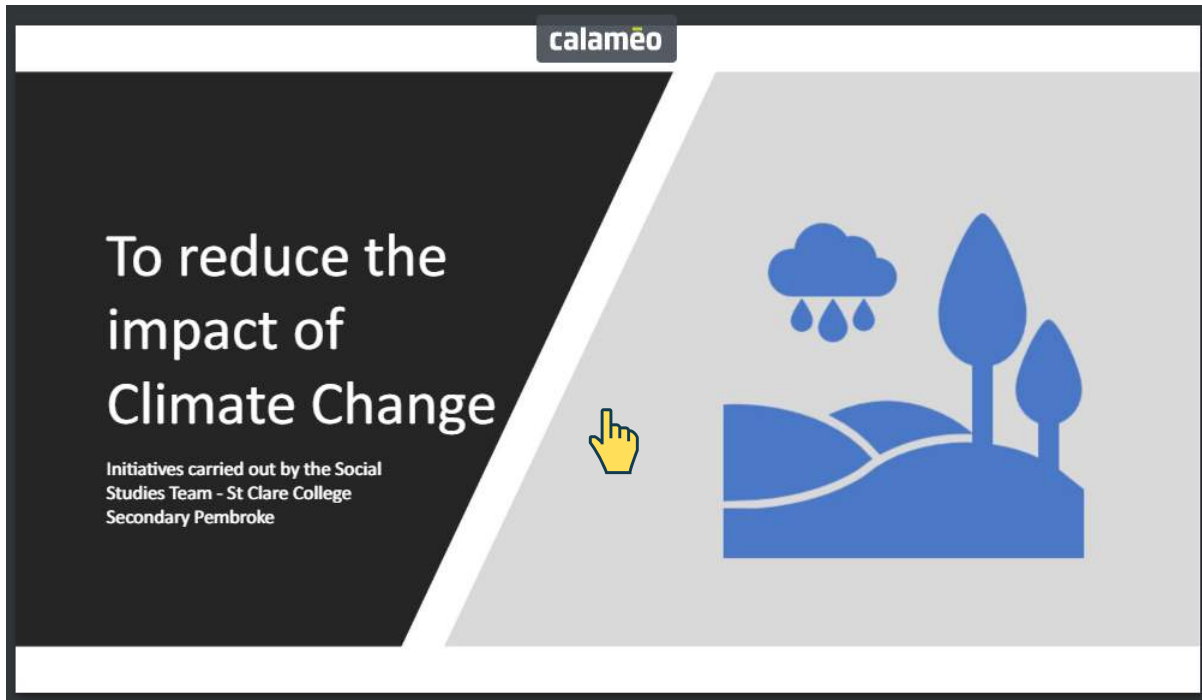


Figure 1. PowerPoint presentations.

"The Earth's climate has changed throughout history. Just in the last 650,000 years there have been seven cycles of glacial advance and retreat, with the abrupt end of the last ice age about 11,700 years ago marking the beginning of the modern climate era — and of human civilization. Most of these climate changes are attributed to very small variations in Earth's orbit that change the amount of solar energy our planet receives."

Source: <https://climate.nasa.gov/evidence/>





DEAR FUTURE GENERATIONS: SORRY

Prince Ea is an activist who has launched this powerful video about mitigating Climate Change. In 2015, just in time for Earth Day, he tried to raise awareness about the alarming rates of deforestation and the reckless destruction of our environment for which we are all responsible.



Figure 1. Dear future generations: Sorry



Figure 2. Students from EFFL, AENG and IES Llanes watching the video and writing on the Linoits.

The students watched the video, reflected about this message and shared their thoughts.

<p>While watching the video, there were some things that really stand out to you. Let us know what they were!</p> <p>Don't forget to identify yourself (capital letters of your name and surname, your school and your country).</p>	<p>MV, AENG, PORTUGAL. "Betraying nature we end up betraying ourselves, and saving nature means saving ourselves".</p>	<p>RF, NS, KO and JP, AENG, Portugal We are destroying our home, we need to do something for fighting this.</p>	<p>CE IES Llanes, Spain We give more importance to other things than to our planet.</p>	<p>ET and AL IES Llanes, Spain We have to realise that our suffering for our actions. We cure the damage we have</p>
<p>LJ AENG Portugal The video speaks clearly that we are destroying what we should love.</p>	<p>MS and TS AENG Portugal It speaks about the destruction of our planet and what we love.</p>	<p>AS, AENG, PORTUGAL. "Sarah Palin, you said that you love the smell of fossil fuels"- this sentence is very shocking because Sarah Palin denied the problem of climate change.</p>	<p>MB and LP IES Llanes, Spain Past generations made so many excuses to do nothing to help future generations. We must act now.</p>	<p>PG IES Llanes, Spain People make excuses and do nothing. We just don't realise special the Earth is.</p>
<p>BB, AENG, Portugal It was very polemic what she said so..."Sarah Palin, you said that you love the smell of fossil fuels"</p>	<p>CL, ML and AC, AENG, PORTUGAL We think the interesting part was when they created the website to save the trees and the speech was rhyming.</p>	<p>IB, AENG, Portugal "Most of us don't care about tomorrow".</p>	<p>MM and MC IES Llanes, Spain The pollution of the air by the burning of fossil fuels. The burning and logging of trees and the plastic in the oceans.</p>	<p>IG IES Llanes, Spain Everything is for money. Profit above need. Climate change is a threat. Trees cure our diseases Native Americans protected Earth for future generations</p>
<p>JL and PP, AENG "The thing about truth is that it can be denied, not avoided". It stands out that he says we can still make up for our mistakes</p>	<p>PS, AENG, PORTUGAL "We are not apart from the nature, we are a part of the nature"</p>	<p>LC AENG PORTUGAL We are destroying our home, and we don't have notion how devastating it is.</p>	<p>MM IES Llanes, Spain Trees are very important for us. They give us medicine and clean air. Native Americans worried about the planet for future generations.</p>	<p>MA IES Llanes, Spain. The people are homeless because the sea level has risen, the trees, and the most important is that we need to change</p>
<p>IJ AENG, Portugal. Prince EA apologizes for our actions and he states that we have extinguished the trees.</p>	<p>BA, DG, MM and ME, AENG, PORTUGAL. The trees clean our pollution. We destroyed 40 football fields for minutes</p>	<p>LB IES Llanes Spain In my opinion the idea that stands out is that we are destroying the Earth. We are</p>	<p>ID IES Llanes, The Native Americans</p>	

Figure 3. Linoit 1 - Something that really stands out.



Figure 4. Linoit 2 - I don't necessarily agree.

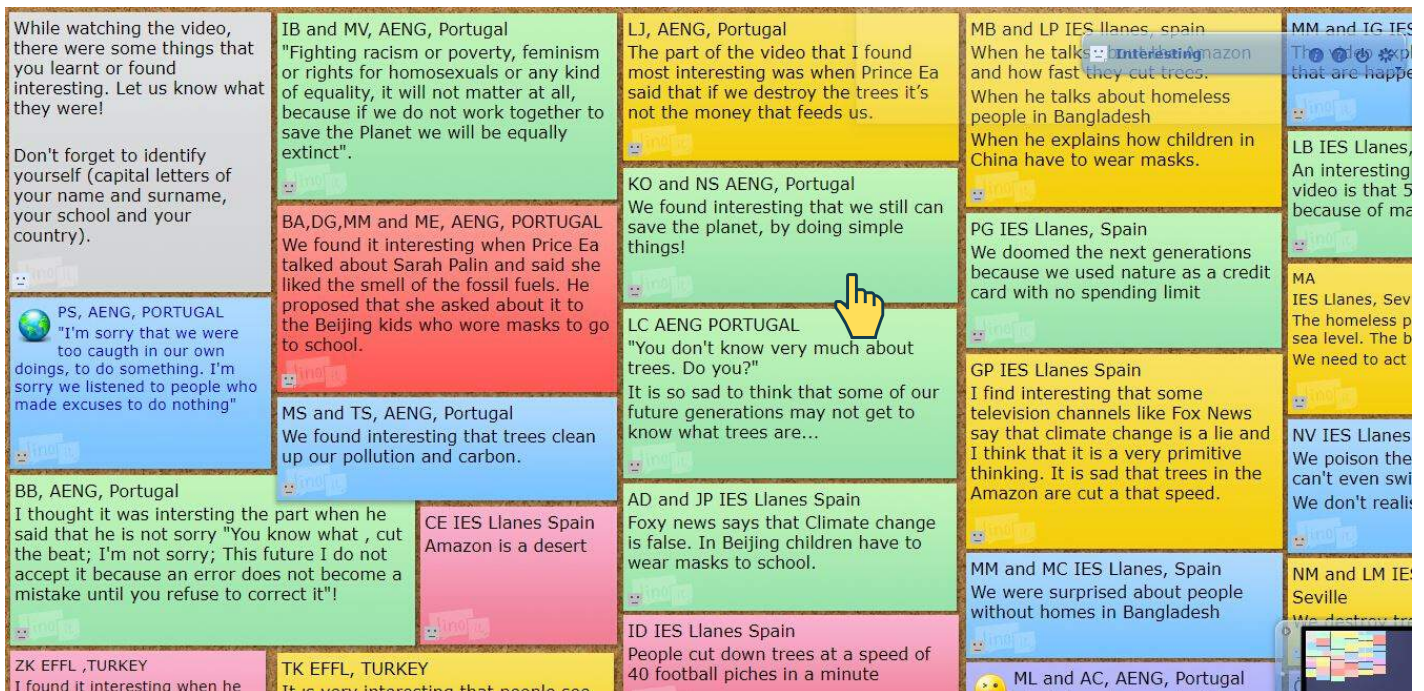


Figure 5. Linoit 3 - Interesting.

This activity was adapted from:

<https://jcasatodd.com/resources-and-classroom-ideas/classroom-ideas/stand-up-for-trees/>

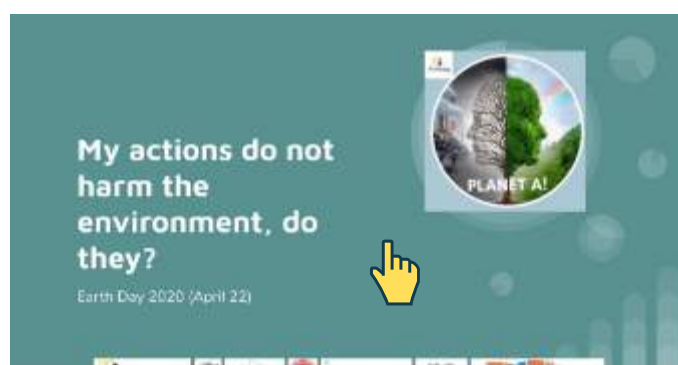
MY ACTIONS DO NOT HARM THE ENVIRONMENT, DO THEY?

By thinking about their personal lifestyle choices eTwinners collaborating on this project realized that each of us consume some of the Earth's products and services every day. How much we take depends on the ways in which we satisfy our needs and wants.

The students answered a questionnaire that didn't intend to be an ecological or carbon footprint calculator! It aims, instead to lead the students question some lifestyle choices understanding the connection between their personal choices and the health of the planet.



Figure 1. Questionnaire (Google form).



My actions do not harm the environment, do they?

My actions do not harm the environment, do they?
Earth Day 2020 (April 22)

Figure 2. Questionnaire results.

The results were published on Earth Day:

- Most of the students know which is the main source of energy they use. However, by the end of the project, it would be desirable that they realized that with simple changes they could save energy.
- Most of the students know the importance of buying locally and reusing bags. However, buying new furniture, new clothes and smartphones is very tempting!
- Our students are aware of the importance of not wasting food and pay attention to the products label, in order to to know what they contain and their origin. However, they consume food with packaging.
- Almost all students recycle plastic and paper.
- Many students use bottled water and have long showers. Almost all of them don't let the water running while brushing their teeth. Many didn't know about the relationship between meat consumption or buy new clothes and water waste.
- Most of the students go to school on foot or by public transportation.



Some students calculated their ecological footprint and then worked on international teams in order to better understand how simple daily actions might contribute to climate change!

"In a world of more than seven billion people, each of us is a drop in the bucket. But with enough drops, we can fill any bucket."

David Suzuki

WHY MIGHT OUR LIFESTYLE CHOICES HARM THE ENVIRONMENT?

The students chose the topic they would like to explore and international teams were formed. They communicated and collaborated through the TwinSpace forums and twinmail.

The topics were:

- Energy consumption;
- Wash and dry clothes;
- Unplug electronic devices;
- Warm houses;
- Light bulbs;
- Furniture;
- Clothes;
- Smartphones;
- Buy local;
- Shopping bags;
- Meat consumption and climate change;
- Food waste;
- Origin of the products we buy;
- Waste/garbage;
- Water.

Share your ideas with your partners:

Let your partners know who you are - national teams students;
 How do you want to share your research (eg. through a Google doc, ...);
 What do you want to do? eg. an infographic, a poster, a presentation, a video, a game, ...
 Which Web 2.0 tools do you want to use? eg. [Biteable](#), [Canva](#), [Easelly](#), [Emaze](#), [Genially](#), [Kahoot!](#), [Learning](#), [Prezi](#), ...
 Remember that some of these apps allow collaborative work (you may work together on it).

Don't forget the netiquette rules.

Let's create and inspire!

Hello, partners!
 I started research on our subject in this [Google doc](#). If you want, you can change anything or add an information. Pedro Si

Reply • Quote • Edit • Delete

We've done research about buying locally and added informations about benefits of buying locally. Ege A

Reply • Quote • Edit • Delete

OK, thank you! Maybe it's time to start to think about what are we going to do next. Pedro Si

Hi! You know, the project is ending soon. We are thinking it can climate change. What do you think about it?

Reply • Quote • Edit • Delete

We agreed with you to make the digital poster, here is the link for the poster.
https://www.canva.com/design/DAD7w_PiNt0/share/preview?token=w_hADYwnNxOBPWR7wuBRTg&role=EDITOR&utm_content=DAD7w_PiNt0&utm_campaign=designshare&utm_medium=link&utm_source=homepage_design_1

Reply • Quote • Edit • Delete Carolina L

OK, it's a great idea. We are going to choose the poster template.

What do you think about this one? [Poster](#)

Reply • Quote • Edit • Delete Jo

We liked the poster. If everyone liked it, we can stop working. We're happy to work with you.

Reply • Quote • Edit • Delete Fatma Sena Hel

Hi, that's a nice poster. And I made a poster too. But it has more information and less photograph about this? https://www.canva.com/design/DAD-UT0lwTE/1iJ7A5FPMh80sk1f4tfpiv/view?utm_content=designshare&utm_medium=link&utm_source=homepage_design_1

Reply • Quote • Edit • Delete Serifenur O

It's a great poster Serifenur! It's right to the point.

Reply • Quote • Edit • Delete Maria Gor



Figure 1. Examples of communication on the Forum of the international teams.

ENERGY CONSUMPTION



DO WHAT'S RIGHT, DON'T LET
CONSUMPTION CONSUME YOU,
SAVE ENERGY AND GIVE THE
PLANET A HELPING HAND ...

In our daily lives, we consume a lot of energy, how?

- washing clothes;
- bathing;
- washing dishes;
- warming our houses;
- watching Tv;
- using our smartphones, laptops, computers or tablets;
- cooking our meals;
- illumination;
- recharging batteries of electronic devices;
- ...



If we use fossil fuels to produce energy we are contributing to climate change, as burning it releases carbon dioxide to the atmosphere.

ENERGY SOURCES:

- FOSSIL FUELS;
- SOLAR ENERGY;
- HYDROELECTRIC ENERGY;
- WIND ENERGY;
- ...

Energy consumption	
<u>Negative effects</u>	<u>Solutions</u>
<u>Environmental pollution</u>	The main solutions for environmental pollution are to reuse, recycle and use reusable things.
<u>The consumption of fossil energy.</u>	Use a bicycle, buy organic fruit and vegetables, buy foods that are not in plastic ...
<u>Negative impacts on the environment</u>	The solutions to the environmental impact are: Save energy, Reduce the generation of waste, Reuse Products: such as a toothbrush, bags
<u>Greenhouse effect</u>	Reduce the greenhouse effect, using led lights, isolating your home.

International team:

Isadora, Margarida and Lara (AENG); Alex and Izan (IES RT); Růveyda and Selin (EFFL).

In today's machines you should wash your clothes at **lower temperatures**.

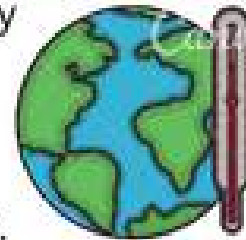


Wash and dry clothes

Climate
CHANGE



The higher the temperature we wash and dry clothes, the greater the amount of energy consumed. That increases the release of polluting gases, such as GHG, into the atmosphere, contributing to climate change.



The carbon footprint of a load of laundry:

- 0.6 kg CO₂e washed at 30°C, dried on the line
- 0.7 kg CO₂e washed at 40°C, dried on the line
- 2.4 kg CO₂e washed at 40°C, tumble-dried in a vented dryer
- 3.3 kg CO₂e washed at 60°C, dried in a combined washer-dryer

Source: <https://bit.ly/2X5rA1U>

Many people in the villages still hand wash their clothes, but in the cities it is rare for anyone to do so.



On the other hand, the drying of clothes is still done in the sun, by many people, whether in villages or cities.



International team:

Bruna, Mafalda and Maria (AENG); Minerva and Lucía (IES RT); Zeynep D., Nisa and Tümay (EFFL).

Unplug electronic devices

How It Affects Climate Change

NEGATIVE EFFECTS

If You do not disconnect the plugs you spend energy that does not need to be spent

Comsume light you don't need me to use



Unplug When Not in Use



Recomendation

Disconnect things whenever you don't use them

You are also saving energy and money



HOW DOES IT AFECT CLIMATE CHANGE

UNPLUG ELECTRONIC DEVICES BADLY AFECTES BY CLIMATE CHANGE.bECAUSE A LOT ENERGY IS USED,WITCH CAN BE BETTER USED FOR THE EARTH




WE CAN DOIT

CLIMATE CHANGE UNPLUG DEVICES





**SAVE AND MAXIMIZE ENERGY
USE ENERGY-SAVING APPLIANCES**

Global warming that has become a real problem, causing sudden changes in climate and natural accidents around the world can be reversed, but not only large industries pose a threat to the environment, but so are daily customs. For that we have to do different things and save energy to be able to stop it.





WE HAVE TO ALWAYS REMEMBER THAT WORLD THERE IS ONLY ONE AND WE HAVE TO TAKE CARE OF IT BECAUSE WE ARE NOT BEING RESPONSIBLE AND ONE OF THE BEST WAYS NOT TO POLLUTE IS TO SAVE ALL THE ENERGY OF WHAT ELECTRONIC DEVICES POSSIBLE.

Test your knowledge about this topic by playing the Kahoot!.



You have been challenged!

Open for: 8 days



Unplug electronic devices

8 questions

Hosted by: aeng83



International team:

Diogo G., João Ö, João P. (AENG); Javier and Marc (IES RT); Irem B. and Metehan (EFFL).



WARM HOUSES

PLANET A!

HOW DO WE WARM OUR HOUSES?

We use energy!



IS THE TEMPERATURE THAT WE WARM HOUSES IMPORTANT?

Look for efficient appliances A;
 We can take advantage of sunlight to heat the house;
 By simply turning the heating down a couple of degrees,
 we are already making a significant contribution to
 preventing climate change from becoming worse.



WHAT IS THE RELATIONSHIP BETWEEN WARMING HOUSES AND CLIMATE CHANGE?

To supply energy to our homes the energy sources end up releasing greenhouse gases into the atmosphere...

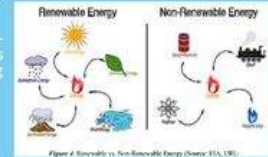


WARM HOUSES



HOW DO WE WARM OUR HOUSES?

To heat our houses we use non-renewable energy sources such as coal, but we should start using renewables such as solar or biomass.



DIFFERENT ACTIONS THAT AFFECT CLIMATE CHANGE



- One of the activities that contribute to the increase of CO2 and therefore to climate change is the use of heating. Fossil fuel heaters (coal, diesel, natural gas) emit CO2 during combustion.
- To install equipment that consumes a lot of electricity, an electricity that today is generated mainly in coal or gas plants, which emit greenhouse gases that cause temperatures to rise.

MEASURES TO COMBAT ACTIONS AFFECTING CLIMATE CHANGE:

- Turn off when we are not using the laptops, printers...
- We can turn the thermostat down in winter.
- Use low energy bulbs over traditional ones.
- Look for efficient appliances A.
- Follow a low-carbon diet.



WHAT IS THE RELATIONSHIP BETWEEN WARMING HOUSES AND CLIMATE CHANGE?

- We waste energy, overuse resources and use electrical appliances inefficiently.
- Warm houses is one of the main sources of CO2 emission due to the big use of electric devices that consume a lot of energy.



Luis Valldecabres
 Navarro

Spain, IES Riu
 Túrria

International team:

Amélia, M^a Leonor (AENG); Luis (IES RT); Ahmet, Oktay and Şükrü (EFFL).

LIGHT BULBS AND CLIMATE

- Lights and bulbs are classified as special waste, as they contain gases that mix mercury and argon in small amounts.



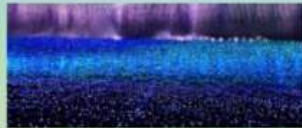
- The most polluting light bulb is the Halogen because it has more toxic substances.

- The bulbs The least polluting are the LEDs because they have less toxic waste.



TIPS TO NOT DAMAGE THE CLIMATE WITH LIGHT BULBS

- Always use LED bulbs to decrease consumption



- Use lighting dimmers for every place and moment



- Do not turn off the fluorescent tube if you are going to use it before 15 minutes



- Cleaning the bulbs saves 20% of consumption.



Pau Hurtado Pérez

Did you know that?

- LED has 80% more energy use compared to incandescent lighting, with 95% energy use and only 5% wasted in the form of heat.
- It is estimated that the LED can last up to approximately 50,000 hours.
- The LED does not have toxic elements in its composition, unlike incandescent lamps.
- LED is 100% recyclable and **reduces carbon emissions** by one third compared to traditional lighting.
- LED lighting can be used outdoors, when connected to a solar power source.



International team:

Diogo G., João Ö, João P. (AENG); Omar and Pau (IES RT); Mehmet, Egemen, Yusuf and Boray (EFFL).

FURNITURE

AND HOW IT AFFECTS CLIMATE CHANGE

DEFORESTATION



A lot of trees are cut down in order to make furniture. Destroying forests affects climate change decreasing the absorption of carbon dioxide which contributes to increase the greenhouse effect.

Climate
ENERGY



EXOTIC SPECIES

The introduction of exotic species of trees for better and faster production of wood, disrupts the ecosystem equilibrium.

MONOCULTURES



Old-growth forests store carbon for centuries, whereas plantations and young forests are net emitters of carbon due to the disturbance of the soil and the degradation of the previous ecosystem.

International team: João L, Kyazi, Demir, Semih and Kerem

International team:

João L. and Kyazi (AENG); Demir, Semih and Kerem (EFFL).



DON'T WEAR FUR!

More than 50 million animal fur are slaughtered every year. Not only wild animals such as fox, mink, lynx, leopard and seal, but also rabbits, cats and dogs are brutally killed for their fur. Moreover, the fur of cats and dogs is used in making toys and accessories.

That animals have their life like us. And they are killed for their fur. We can wear something isn't fur but they can't. They just have one fur. They shouldn't killed because of us.

**They need
their fur more
than we do**

International team:
Andreia and Matilde (AENG); Özge and Betül (EFFL).



Smartphones

ICT is responsible for about **1.5 per cent** of worldwide carbon emissions.

Smartphones are one of the worst contributors to tech's carbon footprint:



Mining activity - metals' extraction: a phone requires almost 10 times as much precious metals as a computer.

Data centers - buildings need to be cooled: high level of carbon dioxide emissions.



SMARTPHONES and CLIMATE CHANGE

by: Şerifenur Öztoprak

Making a phone accounts for 85–95 percent of its annual carbon footprint because manufacturing its electronics and mining the metals that go into them is energy-intensive. The analysis showed that smartphone emissions will go up from 17 to 125 megatons of carbon dioxide equivalent between 2010 and 2020.

Gold is used in smartphones but gold mining is a major cause of deforestation in the Amazon. Furthermore, extraction of gold from the earth generates waste rich in cyanide and mercury – two highly toxic substances that can contaminate drinking water and fish, with serious implications for human health-



International team:

João M., Njamy and Petyo (AENG); Serifenur and Ezgi (EFFL).

WHAT HAPPENS IF

We buy locally

We don't buy locally



Food We Know

If we buy locally, we can ask what practices are used to raise the food we are buying. When you know where your food comes from and who grew it, you know a lot more about it

Support Local Economy

If we buy locally, the money that is spent with local farmers and growers all stays close to home and is reinvested with businesses and services in our community.

Diet-Related Conditions

For people with food sensitivities to preservatives, hormones or other food chemicals, locally grown food is a great option. It can help support any possible digestion issues that people with food allergies may experience.



CO₂ Emissions

If we shop in big supermarket chains, the products travel from far away to supermarkets. The means of transport used such as trucks, boats or planes are often pollutant and release carbon dioxide to the atmosphere.

Resource Depletion

If we buy locally, it is unlikely that our food and assets, are produced unsustainably, running out our natural resources

Use of pesticides and herbicides

If we buy locally, our food is more likely free of pesticides and herbicides and others chemicals that, besides killing animals that were not supposed to, can be harmful to humans if ingested. They are also very polluting.



Buy local



International team:

Pedro (AENG); Ege, Furkan and Ömer (EFFL).

How our actions affect the climate change



Plastic bags
pollute a lot
because animals
eat them and
they get bad or
tangled ...

How to avoid contamination with plastic bags?

- Use fabric bags or reusable instead of plastic.
- If we use plastic bags we have to recycle them
- Use cloth bags instead of plastic bags.



Do you dare to collect the plastic bags?

International team:

Andreia and Matilde (AENG); Naiala and Bianca (IES RT); Bengisu, Emine, Eylül and Meryem (EFFL).



MEAT



CONSUMPTION

CLIMATE CHANGE



Agriculture and deforestation contribute a quarter of the global emissions of greenhouse gases, and livestock is responsible for 60% of emissions from agriculture.

Raising livestock for the grocery store releases about a third of the industry's GHG emissions.

Livestock and sheep farming creates large amounts of methane, a powerful greenhouse gas. Cutting meat, or even reducing consumption and favoring fish and chicken, can seriously save carbon.



All of these animals need a lot of food and vast areas of forests, grasslands and swamps have been destroyed to feed livestock. Giant chunks of the Amazon rainforest and other South American forests and savannas have been replaced by soybean fields, wiping out the wildlife they sustain. This is a disaster for the climate.

International team: Carolina, Isis, İrem, Fatma, Naiara, Jessica.

International team:

Carolina and Isis (AENG); Naiara and Jessica (IES RT); İrem S. and Fatma (EFFL).

Food waste!!!

Why does it contribute to climate change?

Not just because people in Africa are struggling for some food but it is also contributing to climate change.

The agricultural industry contributes more than 8% overall to climate change, and raising livestock for the grocery store releases about a third of the industry's GHG emissions. The primary emission is methane, which experts say is more environmentally destructive than CO2.



Food waste!!!

Why does it contribute to climate change?

Consumers can directly reduce the demand for beef, pork and other commercially raised meat by making slight changes in their daily menus. In reality, giving yourself proper portion sizes of food can reduce the need for animal products while keeping the body healthy. For instance, an 8-ounce steak is actually almost three meal portions of meat.



Food waste!!!

Why does it contribute to climate change?


Food production and processing, transport and delivery and ultimate disposal of waste all produce GHG emissions. Throwing good food away not only keeps the demand for these processes needlessly high; it also damages the environment.

The producers, the supermarkets, the households, the restaurants and the nations have to work together to reduce the food loss and waste. That way the natural resources used to produce food will end up as meals for the world's population instead of as garbage in landfills.



International team:

Bernardo and Diogo A. (AENG); Yaren and Azra (EFFL).



Palm oil is the most produced oil in the world. In recent years, palm oil plantations have increased by 27 million hectares.

ORIGIN OF THE PRODUCTS (PALM OIL)



BEFORE BUYING ANY FOOD, WE SHOULD CONSULT THE LABEL AND ITS ORIGIN AND THINK ABOUT WHAT WE ARE DOING IF WE CONSUME THAT FOOD.

We, consumers, do not realize much of what happens. Our daily consumption of palm oil also has negative effects on our health because, if refined, it contains large amounts of fatty acid esters, which can interfere with hereditary heritage and cause cancer.

- Trees and rare species of animals such as the orangutan, the born-pygmy-elephant and the sumatran-tiger also disappear, as their habitats are destroyed for palm oil plantations.
- Small farmers and indigenous people who inhabit and protect the forest are often violently removed from their land.



International team:

Bruna, Mafalda and Maria (AENG); Bahar, Bilgenur, Irem T., and Selin (EFFL).

WASTE

Why waste is bad for environment?

1 AVOID PLASTICS

Plastic kills one million seabirds, 100,000 marine mammals and many fish every year.



2 BEWARE THE CLIMATE CHANGE

Garbage dumps generate and emit biogas, which consists of methane gas (CH₄) and carbon dioxide (CO₂), two of the gases that cause the temperature rise and the climate change.



3 FASHION AND WATER

The fashion industry is responsible of the 20% of global water waste.



4 GREENHOUSE GASES



Clothes and shoes manufacturing produces 8% of greenhouse gases.

5 FOOD WASTE

The food waste has different consequences, one of them is the volume of water wasted in its production (8060m³ a year), and another is that 3300 million tonnes of greenhouse gases are added to the atmosphere during the process.



CREATED BY DIEGO ORTIZ GARCÍA (IES RIU TÜRJA)

GARBAGE AND CLIMATE CHANGE

NEGATIVE EFFECTS



The excessive generation of solid waste it's increasing th climate change



We are wasting 88 millions of food per year and producing milions of kilograms of CO₂



The plastics, when exposed to solar radiation produce methane and ethylene

SOLUTIONS



Not producing so much solid waste.



Don't waste so much food



Avoid the use of so many plastics and recycle the essential ones.

International team:

Martim and Tomás (AENG); Diego and Ivan (IES RT); Alperen, Atakan and Batuhan (EFFL).

WATER SUSTAINABILITY

Water is a natural resource, essential to life. However, we use it without considering that it may disappear.



We use water to produce electricity?

A dam, is an artificial barrier, made in water courses to retain large amounts of water. Its use is mainly for the water supply of residential, agricultural, industrial areas or electricity production.

We can save water:

1. Close the tap while you are not using water;
2. Enjoy the water in the shower;
3. Do not use the toilet as a waste bin;
4. Install a flow reducing compressor;

...

Climate
CHANGE

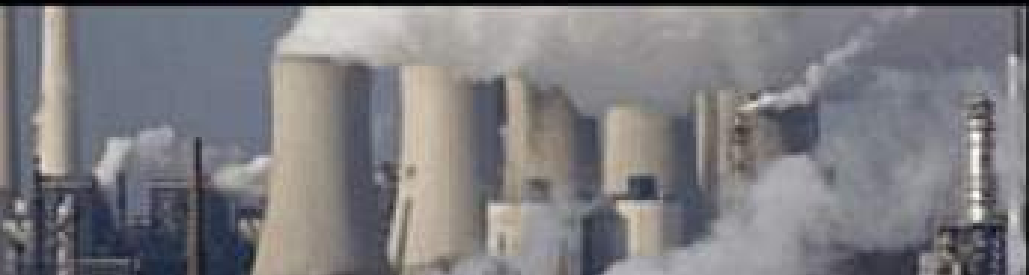


Using water more efficiently will reduce greenhouse gases.



International team:

Dinis and Rafael (AENG); Merve, and Zeynep (EFFL).



CLIMATE CHANGE AND PLANET EARTH

In 2020 many world and/or international days addressed Climate Change. We draw attention to some of them.

International Polar Bear Day (February 27th)

The students watched a video that draw attention to the challenges polar bears face in a warming Arctic and reflected about it.



Figure 1. Students from EFL watching and reflecting about the video.

World Wildlife Day (March 3rd)

On World Wildlife Day (WWD) it's aimed to celebrate and raise awareness of the world's wild animals and plants.

"At the moment, biodiversity is under tremendous threat due to a number of common pressures – habitat stress; overexploitation and unsustainable use of natural resources; air, land and water pollution; increasing numbers and impact of invasive alien species and climate change, amongst other factors."

Achim Steiner, Administrator of UNDP

After watching the 2020 WWD promotional video, the students searched about animal and plant species under threat at their countries or worldwide, found out about the threats and challenges these species and their habitats face, and what can be done to conserve them. They shared their findings on a Forum.

On the forum, students named some Iberian endangered species (*Monachus monachus*, *Aquila adalberti*, *Lynx pardinus*, *Rhinolophus mehelyi*, *Myotis myotis* and *Anaecypris hispanica*).

The main threats to these species survival are pollution, climate change, diseases, and loss of habitat.



[To know more](#)

Isis J. and Pedro S. (AENG)

Reply • Quote • Edit • Delete

Pedro Silva - 05.03.2020 @ 09:58

Spanish Imperial Eagle (*Aquila adalberti*)

This eagle is an animal (bird) from the Iberian Peninsula that is threatened.



NUMBER OF MATURE INDIVIDUALS: 970

Why are the Spanish Imperial Eagles endangered?

These are the main threats to this species:

- Residential & commercial development - Housing & urban areas;
- Agriculture & aquaculture - Annual & perennial non-timber crops, Wood & pulp plantations;

Figure 2. Example from the Forum.

this can cause quite an impact from pollination disruptions to an increase in insect populations.



<https://weatherology.com/trending/articles/Wildlife-Wednesday-Sierra-Nevada-Blue.html> - - - > More information

Reply • Quote • Edit • Delete

Mehmet Türe - 05.03.2020 @ 07:55

Eftl Furkan and Ege

Bald Ibis, Kelaynak in Turkish or Geronticus Eremita in Latin, is also known as Northern Bald Ibis. It is a large black bird with its featherless head and neck and a long curved red beak, living in the Middle East and North Africa. They live in colonies nesting and mating on the steep rock cliffs to protect themselves and their eggs from wild animals and humans.

These birds are almost being extinct as very few of them left in the world, because of toxic pesticides. Toxic pesticides used for killing insects that came to this habitat because of climate change.



Figure 3. Example from the Forum.

The students identified endangered species from all over the world: pandas, wild cats, fallow deer, Sierra Nevada blue butterfly, bald ibis, Canada lynx, *Caretta caretta* (a turtle), red panda, jerboa, dalmatian pelican, Magellanic penguins and koalas).

The main threats to these species survival are loss of habitat, climate change, hunting, pollution and pesticides used in agriculture.

Some students watched and commented other WWD promotional videos.

"I found the video about the big cats very interesting but, at the same time very sad. We are destroying their habitat, killing them to make clothes, carpets and so...they do not deserve it, there is still time to reconcile and act to help them and recover what we have taken from. The video about the ocean is very sad too, we are ending with the "harmony" that nature has. We are doing away with their home and killing them with the plastic we produce and use in excess without need."

Maria E. (AENG)

International Day of Forests (March 21st)

On this day it's aimed to celebrate and raise awareness on the importance of all types of forests. The theme for 2020 was Forests and Biodiversity - too precious to lose.

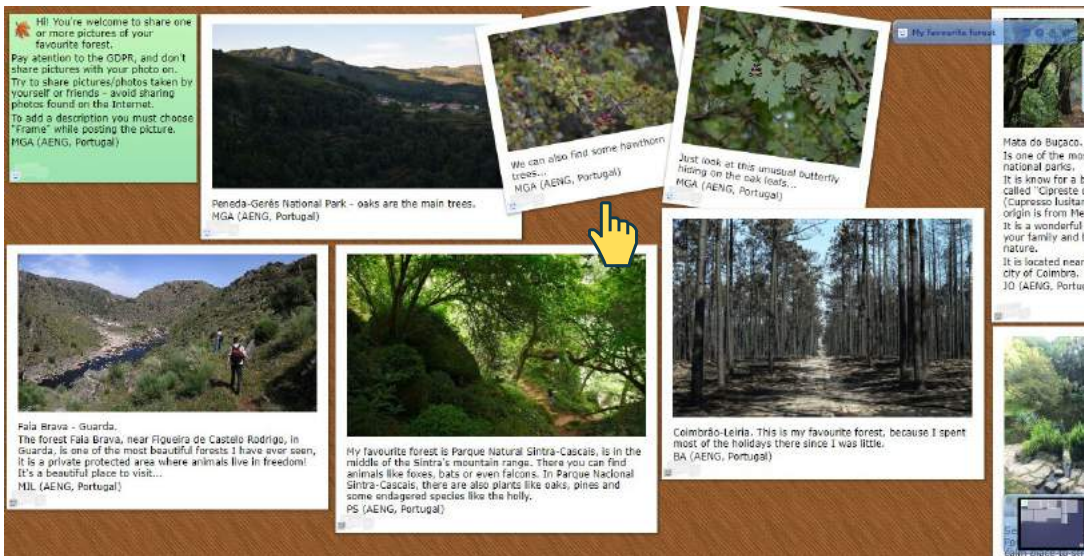


Figure 4. My favourite forest (Linoit).

World Water Day (March 22nd)

World Water Day focuses on the importance of freshwater and raises awareness of the 2.2 billion people living without access to safe water. On 2020 it was about water and climate change – and how the two are inextricably linked.

The students celebrated this day by creating a campaign message on Tricider.



World Water Day 2020

This year World Water Day let us know that water and climate change are inextricably linked. As everyone has a role to play, we challenge you to create a campaign message.

Task 1 - Add your message at the button "Add idea" until 10th April.

Task 2 - Vote on the most powerful messages: you can vote until 3 messages, adding the capital letters of your name and surname, your school and your country (11th April to 24th April).

Figure 5. Campaign message (Tricider).

WORLD WATER DAY 2020

**There are many things without which we
can survive, water is not one of them.**
PS (AENG, Portugal)

**Water is fundamental to life, all living things
need it. We're made of water! Life began in the
water! Without it, we wouldn't exist, so we have
to preserve it to the fullest for our survival.**

IJ (AENG, Portugal)

If you save water, you save all of us!
JÖ (AENG, Portugal)

**Small habit changes can correct huge mistakes.
Let's be more careful about the water we use.
It's never too late.**

MDÖ (EFFL, TURKEY)

**The water deserves our respect because if it
gets sick we get too.**

BA (AENG, Portugal)

**Nature is alive. When we hurt nature, it reacts and responds
us. So we mustn't waste or pollute water otherwise we have to
face the consequences.**

IB (EFFL, TURKEY)

**Water is life. Polluting water means
polluting life. If we want a livable world we
shouldn't waste water.**

LÖT (EFFL, Turkey)



Earth Day (22nd April)

The first Earth Day was organized 50 years ago by Denis Hayes, a 25-year-old graduate student. This year's theme is climate action.

"When we have things going well for the environment, Earth Days tend to be somewhat celebratory, and when you have things going wrong for the environment, then they tend to be protests against all of the things that are going wrong and that are harming people."

Denis Hayes



Every day should be Earth Day.
Let's make it happen.

E very living thing is important	[PS (AENG, Portugal)]
A ll things in nature are valuable	[ŞÖ (EFFL Turkey)]
R espect to the Earth	[LÖT, İB (EFFL, Turkey)]
T here is only one	[BA, MM, ME (AENG, Portugal)]
H ome for all biodiversity	[AS (AENG, Portugal)]
D on't destroy it.	[NS (AENG, Portugal)]
A n Earth we have	[FSH (EFFL, Turkey)]
Y ou can make the difference!	[BB (AENG, Portugal)]

Figure 6. Earth day collaborative poem.



Earth Day

C hange your actions	[JL (AENG, Portugal)]
L ook for new options	[LB (IES Llanes, Spain)]
I t's very worrying	[AS (AENG, Portugal)]
M ake the world better	[LÖT, İB (EFFL, Turkey)]
A nd remember:	[JÖ, PP (AENG, Portugal)]
T ogether we can make a difference	[ML (AENG, Portugal)]
E arth is our home	[JÖ (AENG, Portugal)]
A ll of us need her.	[JM (AENG, Portugal)]
C an we make it better?	[MDÖ, EFFL, Turkey]
T he Earth needs help!	[PP (AENG, Portugal)]
I can change!	[KO (AENG, Portugal)]
O nly you can save them	[ED, EFFL, Turkey]
N ow the choice is yours!	[CL, LJ (AENG, Portugal)]

Figure 7. Earth day collaborative poem.



Figure 8. Earth day collaborative poem.

The students created collaborative acrostic poems and shared on a padlet what they have done to celebrate Earth Day at home. They added their experience or works done for Earth to some of the nine proposed activities and commented on their partners shares.

Earth day activities

1. Planting a garden, a tree or add some green to your space;
2. Taking a walk (while social distancing), discovery of native plants;
3. Learning about recyclables;
4. Shopping sustainable brands online;
5. Watching a documentary about the Earth;
6. Rethinking food scraps;
7. Looking for stars;
8. Donating to charity;
9. Taking a virtual field trip.

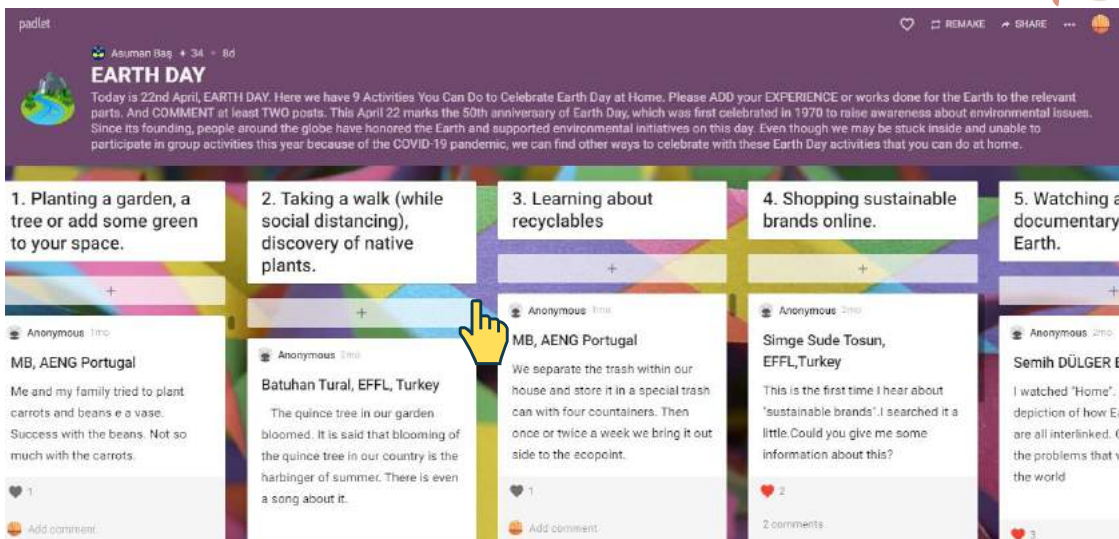


Figure 9. Earth day padlet.

World environment day (5th June)

"Nature is sending us a clear message. We are harming the natural world – to our own detriment. Habitat degradation and biodiversity loss are accelerating. Climate disruption is getting worse. Fires, floods, droughts and superstorms are more frequent and damaging. Oceans are heating and acidifying, destroying coral ecosystems. And now, a new coronavirus is raging, undermining health and livelihoods. To care for humanity, we must care for nature. We need our entire global community to change course. Let's rethink what we buy and use. Adopt sustainable habits, farming and business models. Safeguard remaining wild spaces and wildlife. And commit to a green and resilient future. As we work to build back better, let's put nature where it belongs - at the heart of our decision making. On this World Environment Day, it's Time for Nature."

UN Secretary-General, António Guterres

After watching the video the students left some interesting comments.

I agree because we shouldn't stop the world just because of a virus.

Delete

Carolina Lopes 16:50 09.06.2020

It's so true. We must care nature more. We should be more careful about what we buy and use. If we want a green future and nature we must make right decisions.

Delete

Irem Bulat 14:26 09.06.2020

The video gives us a clear and important message. We should say stop to that situation. We should protect biodiversity and we should protect our world.

Delete

Leyla Özge Tunç 11:27 09.06.2020

I think we have to study more about biodiversity at school. And I think we should pay more attention to protecting the biodiversity, that's what the video says and I totally agree with it.

Delete

Petyo Petkov 10:33 09.06.2020

We must adopt sustainable habits, agriculture and business models, it cannot be a minority to save nature we must be all.

Delete

Bruna Antunes 10:30 09.06.2020

I find the video very interesting because when people have other afflictions they forget to protect biodiversity.

Delete

Martim Sousa 10:30 09.06.2020

Figure 11. Comments on the message of the UN Secretary-General.



Figure 10. António Guterres (UN Secretary-General) on World Environment Day 2020

This video gives a very important message! Our planet needs help because we are harming it. Our behaviors must change, because there are clear signs that the situation we are living and that we have creating, by poluting deflorestating and by doing other actions that harm the enviroment, is very important to be stoped. Althought the COVID-19 it's something very bad, it made us realize that our behaviors can in deed change, so what are we waiting for?

Delete Pedro Silva 10:28 09.06.2020

He is right. We have to take care of our planet and improve it. We must behave more sustainably for the planet.

Delete Mafalda Mariano 10:26 09.06.2020

It is important not to forget about climate change because of the pandemic, because is a struggle that still has to be fought and measures that still have to be taken!

Delete Leonor Cintra 10:26 09.06.2020

I found this video very interesting and very touching because it are very important topics, but it have not yet been solved

Delete Maria Esgaio 10:25 09.06.2020

I agree, because with other concerns we forget to protect biodiversity.

Delete Rafael Ferreira 10:23 09.06.2020

I totally agree with this video. We have to take care of our planet and, we have to have more sustainable behaviors, because if not the concepts will be very harmful to all human beings

Delete Amélia Saraiva 09:29 09.06.2020

Biodiversity must be studied more at school.

Delete Alperen Taşkıran 21:07 07.06.2020

Yes, that is right, we have to change our consuming habits.

Delete İrem Sarı 20:56 07.06.2020

Figure 12. Comments on the message of the UN Secretary-General.

It was also important to raise awareness to the fact that the challenges our environment is facing may require more than one day of action.

Figure 13. Tips to work on throughout the year. (SolvayGroup)



Here you are 12 small changes (one for each month) that can have a big impact on our environment.

1. **Say no to plastic straws.** Did you know that plastic straws are not recyclable? If you really need a straw, try the ones made from bamboo, paper or steel.
2. **Donate whenever possible** (eg. used items such as clothing, books and other household items)
3. **Pass on the plastic bags.** Marine life can easily mistake a floating plastic shopping bag for a delicious jellyfish. Try shopping with reusable bags or ask for paper ones instead.
4. **Use less energy.** Switch out regular light bulbs for energy-efficient, long-lasting LED bulbs. You'll reduce your environmental footprint and your monthly energy bill.
5. **Pack a smart lunch.** Incorporate reusable containers and replace disposable bags and saran wrap with other sustainable material wraps.
6. **Create a compost pile.** Even if you do not have a backyard, you can still compost indoors without the smell. Your community may even have a composting program, so ask around to find out how to get involved.
7. **Join your local Community Supported Agriculture (CSA).** Here's how it works: participants sign up for a share from a nearby farm and each week they can pick up a box filled with local, seasonal food from that farm.
8. **Create a bee hotel.** A great activity for the whole family, creating a bee hotel also helps threatened bee populations.
9. **Say bye to the bottle.** According to Brita®, 2,000 plastic water bottles are used every second. Try ditching your disposable plastic bottles for a reusable travel mug or water bottle.
10. **Go thermal.** Thermal curtains that feature a backing layer are designed to protect against heat loss in the winter and also heat gain in the summer saving you money and energy.
11. **Swap your shower heads.** Switching to a low-flow shower head will save water and lower your utility bills.
12. **Recycle!** Sounds simple, right? But according to National Geographic, 91% of the plastics we use aren't being recycled.

(Adapted from <https://medium.com/solvaygroup/world-environment-day-fa37a33ce8d0>)

"Tips are so simple and effective. Everyone can give a try and everyone can be a sustainable consumer easily."

Irem B. (EFFL)

"We must use glass bottles to take water to school"

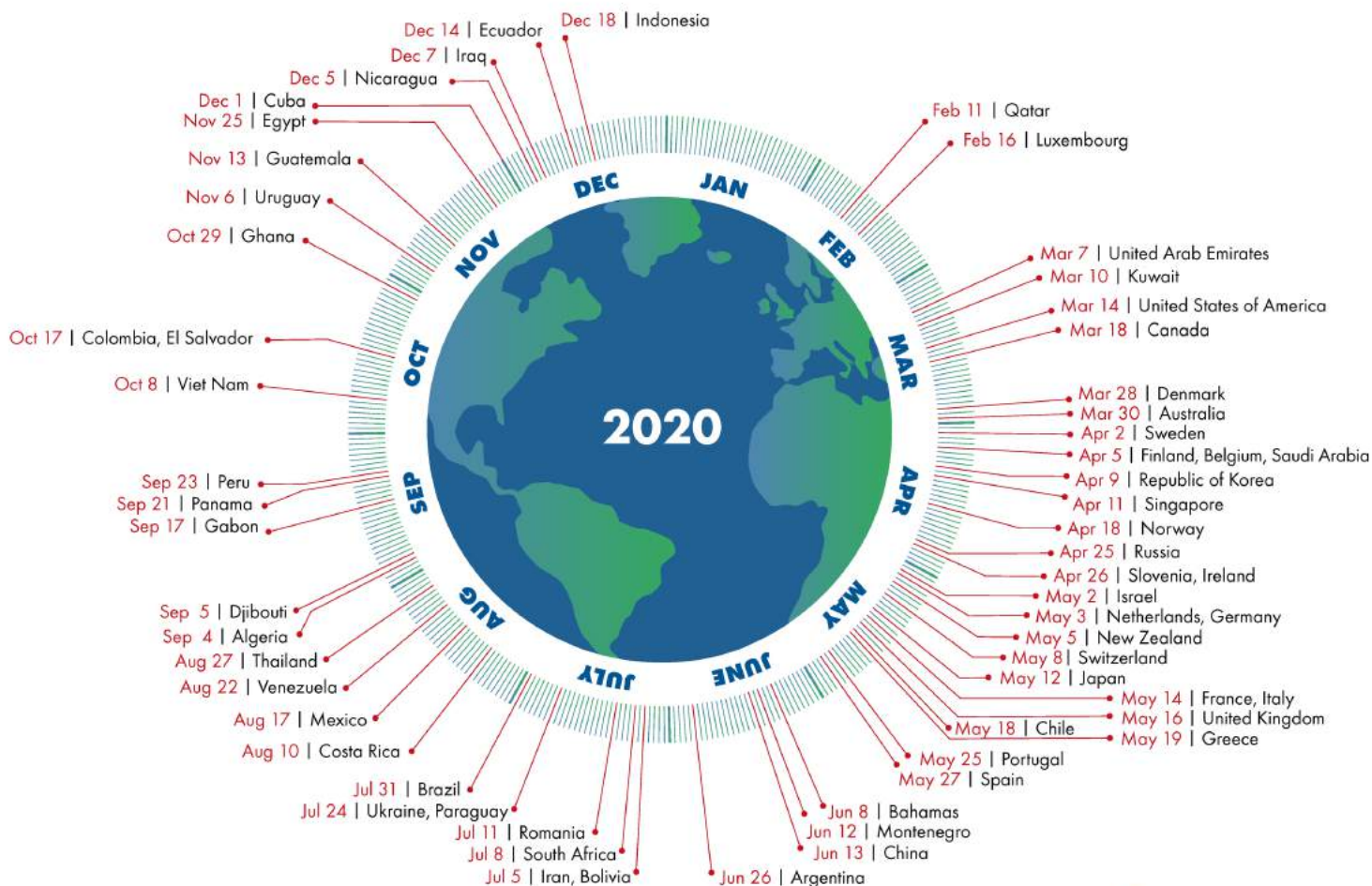
Atakan Ö. (EFFL)

Do you know your country's overshoot day?

A country's overshoot day is the date on which Earth Overshoot Day would fall if all of humanity consumed like the people in this country.

Country Overshoot Days 2020

When would Earth Overshoot Day land if the world's population lived like...



Source: Global Footprint Network National Footprint and Biocapacity Accounts 2019



- Malta: April 12
- Portugal: May 25
- Spain: May 27
- Turkey: June 26



GLOBAL ACTION ON CLIMATE CHANGE

"Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly."

<https://www.un.org/en/sections/issues-depth/climate-change/>

While reflecting about the 2020 United Nations New Year message, many students claimed for action, young people's action! For them this might be something relatively recent. Most of them follow closely the example given by the young activist Greta Thunberg.

Well, we introduced them to another young activist, from 1992.



Figure 1. Severn Suzuki (1992).

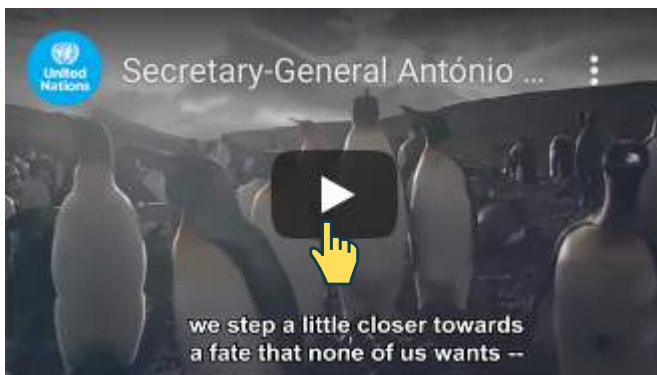


Figure 2. UN Secretary-General, calls for global action on climate change (September 2018).

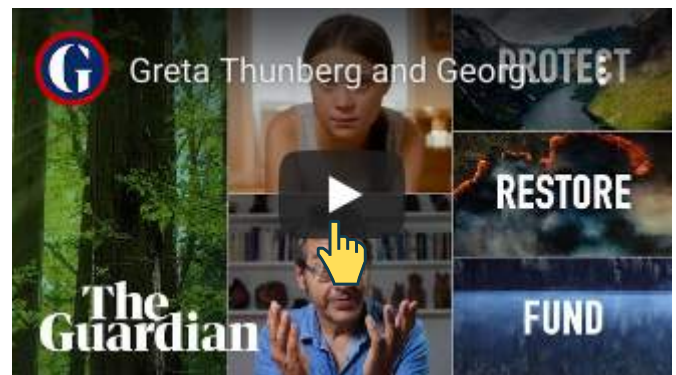


Figure 3. Greta Thunberg and George Monbiot focus on the need to protect, restore and use nature to tackle the climate crisis.

The students shared their opinion about these videos and the need of a global action. Some of them "were surprised to see that other teenagers also did the same things as Greta" (João L.). Most students were really surprised to realize that we are addressing climate change for such a long time. Many highlighted the fundamental role of trees as carbon dioxide sinks and were in to the "PROTECT, RESTORE and FUND" (Irem B.) motto.

Most of the students believe their individual actions might make a difference.



Figure 4. Poll.

Solutions to mitigate Climate Change



Instructions

Many students suggested some solutions while working on how our actions might harm the environment and contribute to climate change. Those solutions will be uploaded to this Twinboard. If you have more ideas please share them here. Don't forget to identify yourself.



Buy local

Buying locally instead of buying in large supermarket chains could help the environment and can help curb climate change and its effects a little.
(Pedro S., AENG, and Ege, EFFL)



Warm houses

The correct isolation of the houses is the key factor for energy saving. Renewable energies would be the alternative to this problem, as well as responsible consumption. As for the heating, we can turn the thermostat down in winter. Look for efficient appliances A. We can take advantage of sunlight to heat the house. By simply turning the heating down a couple of degrees, we are already making a significant contribution to preventing climate change from becoming worse.
(Luis V., IES Riu Turia)



Electronic devices

Unplug the electronic devices when they are fully charged or not in use.
(Diogo G., João Ó., João P., AENG, Marc M., IES Riu Turia, and Irem B., EFFL)



Meat consumption

Buy locally sourced

Figure 3. Solutions presented by the international teams - part 1.

	<p>devices when they are fully charged or not in use. (Diogo G., João Ó, João P., AENG, Marc M., IES Riu Turia, and Irem B., EFFL)</p>	<p>heating down a couple of degrees, we are already making a significant contribution to preventing climate change from becoming worse. (Luis V., IES Riu Turia)</p>
<p>Meat consumption Buy locally sourced food, not supporting fast food restaurants, composting leftover food in a backyard in organic matter instead to throw it in the trash, or maybe start to create a garden and eat the food we grow. Or maybe being vegetarian or even vegan. Giving yourself proper portion sizes of food can reduce the need for animal products while keeping the body healthy. The meat we eat must be produced ecologically, respecting the environmental impacts and the welfare of the animals themselves. (Carolina L., AENG)</p>	 <p>Waste/garbage Reuse the plastic bags that we normally throw away when we use them once. Don't produce as much solid waste as we do with human actions. Recycle the garbage correctly. (Diego O. and Iván L., IES Riu Turia)</p>	 <p>Light bulbs We can save 70% energy by using led bulbs instead of incandescent bulbs. (Mehmet T., EFFL, and Izan O., IES Riu Turia)</p>
 <p>Wash and dry clothes Wash clothes at low temperatures. Dry clothes outdoor. (Bruna A., Maria E., Mafalda M., AENG)</p>	 <p>Furniture Upcycle your furniture. Use recycled materials or repurpose the furniture you already have instead of buying new. Buy furniture made with sustainably harvested wood. Instead of buying new furniture, change its position and if you need to, buy second hand and then renovate it. Reuse furniture supporting local carpenters. This way we also contribute to the local economy. (João L., AENG)</p>	 <p>Food waste Our recommendation for this is to increase the portion option of restaurants, because the amount of food everyone can eat is not the same. Although the served treats are considered as politeness by the restaurants, I think they should be brought by asking the type and amount of the treats. Lettover food should be cleaned from toothpicks and napkins and given to animals. (Yaren G. and Azra G., EFFL)</p>

Figure 4. Solutions presented by the international teams - part 2.



All of us for Earth but only one Earth for all of us!

Carolina, Diogo A., Lara, Njamy, Pedro and Petyo

... more about the project

Parents

The students tried to involve their parents on the project. Here you are two examples of their involvement.



Figure 1. Presentation of the project.



Figure 2. Activity developed with the parents collaboration.

On January 23 two students participated on the event ProjectAr: Tomorrow - screening of the César award-winning documentary Tomorrow, followed by a showcase of local initiatives. This event was disseminated by a mother wishing to be active on the project. As a result Andreia and Carolina shared the main ideas of this documentary with the class as well as some information they gathered from the Zero Waste volunteers participating on the event.

Tomorrow is a documentary, where parents concerned about the future of their kids, travel around the world looking for men and women who create alternatives to save the planet.

This documentary transmits the message to don't think to big, but start where we are - at the city where we live. In the end, if we join efforts and our hearts, we can save the planet.

Andreia, Carolina and Matilde



Figure 3. Tomorrow/Demain.

Image source: svenworld.com

Climate migrants

On January 27, Dra. Cláudia Pedra came to our school and talked about refugees. We got curious about climate "refugees" and we read a few articles she recommended us. Due to climate change there is people on the move in relation to drought, floods, storms - climate migrants. They are not legally considered refugees according to international refugee law. Changing rainfall, heavy flooding, and sea level rise put pressure on people to leave their homes and livelihoods behind. This is already happening in Kiribati and Tuvalu, where people are dealing with sea-level rise, in West Africa where farmers cannot cultivate their crops or raise livestock anymore because of drought and flooding. According to the IPCC in 2050 there might be 200 million climate migrants. Several of the targets established by the SDGs general goals could be used to protect climate migrants - eg. SDG 13 on climate action. Another solution could be dedicating greater resources to mitigate climate migration.

M^a Leonor and Pedro



Figure 4. Drought.



Figure 5. Climate change.



St. Clare College
Secondary
School





Now more about
this project at its
public TwinSpace.

Scan the QR code
or click  .

THE CLIMATE IS
CHANGING
SO SHOULD WE!
#ACT NOW



