



WebQuest

Advanced Level – My
Carbon Budget





TITLE OF THE WEBQUEST:	My Carbon Budget
LEVEL OF THE WEBQUEST	Advanced Level

INTRODUCTION

Every action Matters

Each one of us has a carbon footprint. This is our individual footprint defined by the amount of greenhouse gas emissions that we produce. This footprint forms depending on our use of products, our daily activities and even by how we buy products and services! It forms according to our consumption and type of habits that we do every day; our food, how we shop, what energy appliances we use, which forms of transport we take and so much more!

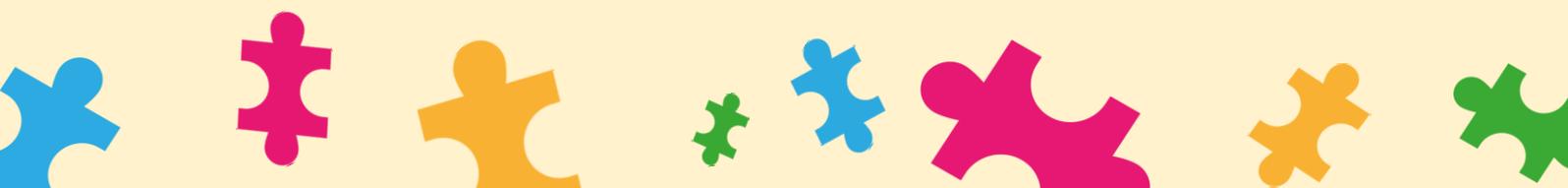
Our carbon footprint is the impact of our actions and how they affect the planet. Global warming is impacted by human carbon footprints, and it is worsened by the emission of carbon dioxide in the air. When greenhouse gases stay in the air, they trap the heat, and so planet Earth starts to get warmer and warmer. Therefore, it is important to understand our own carbon footprint, and how we can reduce it in order to protect the Earth.



TASKS

Carbon footprints are interesting as they are formed completely by our actions. However, this means that we have the power to decrease our carbon footprints and help the planet based on how we complete our daily activities!

In this WebQuest you are going to be guided through a series of tasks that will help you and your classmates to learn about carbon footprints and how it affects the environment. Your goal will be to complete your own *Carbon Budget* that will help you to make wise eco-friendly decisions to lower your own carbon footprint.





Your *Carbon Budget* will track your carbon footprint and will help you to set goals for how to improve your lifestyle choices to be more environmentally friendly! Reducing our carbon footprints can work to reduce the impacts of global warming.

You will complete the tasks in small groups of 2-3 people. When you complete this task, why not present your ideas to your class, and encourage your friends and teachers to reduce their own carbon footprint! Let's get started!

PROCESS

Step 1: A Carbon Emission Mission

When we think about our carbon footprint, we must first think about where our carbon footprint comes from, and what it means, so let's talk about carbon. Carbon is in carbon dioxide; carbon dioxide is said to be a greenhouse gas. Greenhouse gas got its name from the resemblance that occurs when gas and energy is trapped close to the Earth's surface causing the earth's temperature to rise. This is sometimes also called the "greenhouse effect." We know that this can be damaging for the environment and the climate, but what can we do about it?

For more information on **what is a carbon footprint**, click on the following links:

- **What is a carbon footprint? [video]:** <https://www.youtube.com/watch?v=DKDq1RMHscQ>
- **My carbon footprint:** <https://climatekids.nasa.gov/how-to-help/>

For more information on **how we use carbon and its effects**, click on the following links:

- **What is carbon?** <https://climatekids.nasa.gov/carbon/>
- **The science behind climate change:** <https://www.c2es.org/content/climate-basics-for-kids/>
- **The Carbon Cycle:** <https://eo.ucar.edu/kids/green/cycles6.htm>

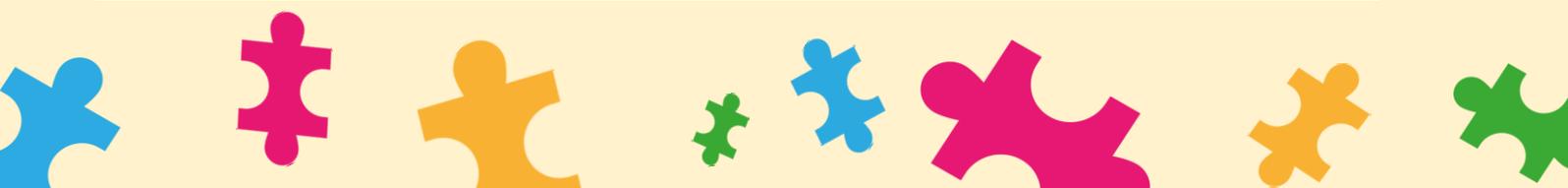
Step 2: What can I do?

We know that our individual carbon footprint can negatively impact the planet, and all its living things. But what can we do to change this? A great step in the right direction is to think about what we can do at home, at school, and even with our family and friends to make decisions that protect our wonderful Planet

For more information on **reduce your carbon footprint** click on the following links:

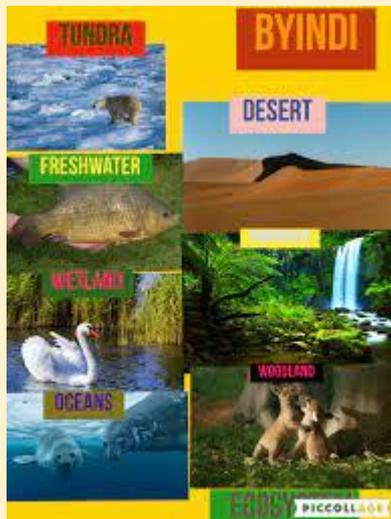
- **Reduce carbon footprint [video]:** <https://www.youtube.com/watch?v=Xdl5Vht0sO8>
- **Ways to save the planet:** <https://kids.nationalgeographic.com/nature/save-the-earth/article/13-ways-to-save-the-earth-from-climate-change>
- **What to do about your carbon footprint? [video]**
https://www.youtube.com/watch?v=YseZXXfT_yY

Step 3: Carbon Footprint Calculator





Now that you know how carbon emissions can damage the Earth, humans, animals, and ecosystems, it's important to see how our actions contribute to our carbon footprint. Our carbon footprint is created by our daily habits and can be reduced by making small changes to how we live our lives. A great way to see how we can make better and more eco-friendly choices is by using a *Carbon Footprint Calculator*. This calculator shows us how our habits emit harmful carbon emissions into the air.



By calculating our own carbon footprint, we can discover where we can make small changes to reduce our negative environmental impact. This means that we can become eco-warriors that want to protect the planet!

To figure out an estimate of your **carbon footprint**, use the **carbon footprint calculator** below:

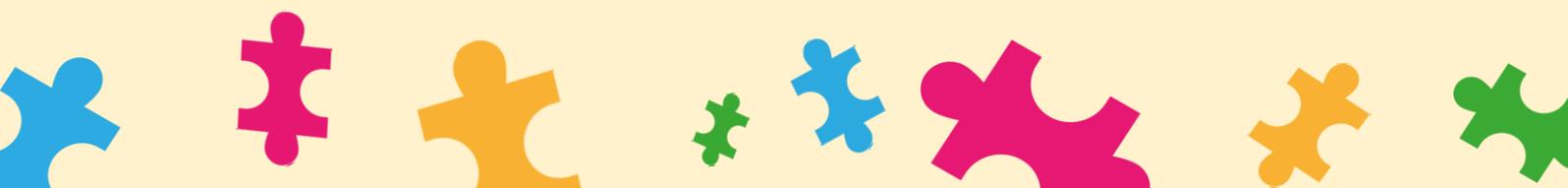
- Carbon Footprint Calculator: <https://footprint.wwf.org.uk/#/>

Step 4: My Carbon Budget Plan

How did you do? Was your carbon footprint surprising? Using a carbon footprint calculator is a great way to see how our actions contribute to global warming, and what we can do to make a change.

In planning for your carbon budget, it is a great idea to first brainstorm within your group on how you can all think of ways to reduce your own carbon footprint and to encourage others to do so too! With your group, why not draw out a mind-map of the important points that you will consider when you complete your own carbon budget. Think about the following points when you brainstorm!

- What measures can I take to reduce my carbon footprint at home?
- What measures can I take to reduce my carbon footprint when travelling?
- How can I encourage others to reduce their carbon footprint?
- What will be the easiest ways to make eco-friendly choices in my daily activities?
- What will be the hardest ways to make eco-friendly choices in my daily activities?





For more information on **how to create a mind-map**, click on the following links:

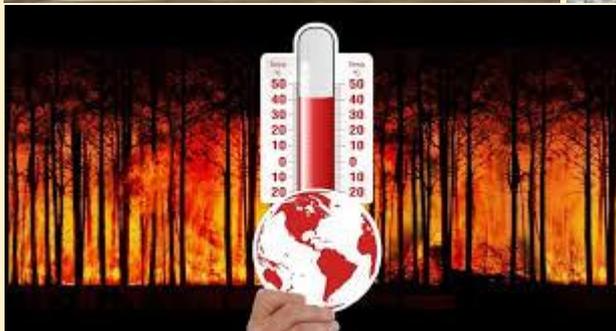
- **How to make a mind map:** <https://www.lucidchart.com/pages/how-to-make-a-mind-map>
- **The basic of a mind-map:** <https://www.youtube.com/watch?v=wLWVOXN7K1g>

For **examples of mind maps**, click on the following links:

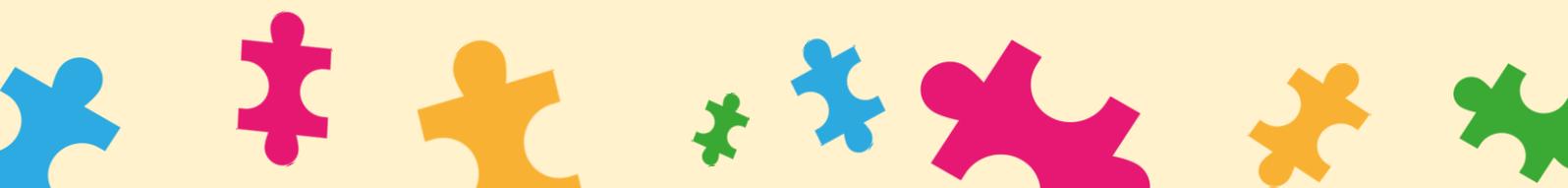
- **Mind-map examples:** <https://www.mindmeister.com/blog/mind-map-examples/>
- **Mind map templates:** <https://venngage.com/blog/mind-map-templates/>

Step 5: Completing My Carbon Budget

Now that you have figured out your own carbon footprint and know how to measure and track your carbon footprint, you are ready to complete your own *Carbon Budget*. In your carbon budget, it is important to think about what you can do to reduce your carbon footprint and how you can make changes to reduce it. Your carbon budget will work as a goal checklist that you can use to set yourself challenges that will ultimately reduce your carbon footprint. There are two examples given in your Carbon Budget Planner, but what other goals could you set to lower your carbon footprint?



Write down three more goals that you can set in your life to reduce your carbon footprint. Once you have decided on your goals, use your Carbon Budget Planner each day and check off what you achieve. Try to make changes that you know will have a great impact on your carbon footprint to lessen the impacts of global warming! Good luck!





Use your *Carbon Budget Planner* as a checklist for yourself to make eco-friendly choices in your daily life! This works to reduce your carbon footprint and make healthy choices for the planet!

My Carbon Budget Planner

Date:

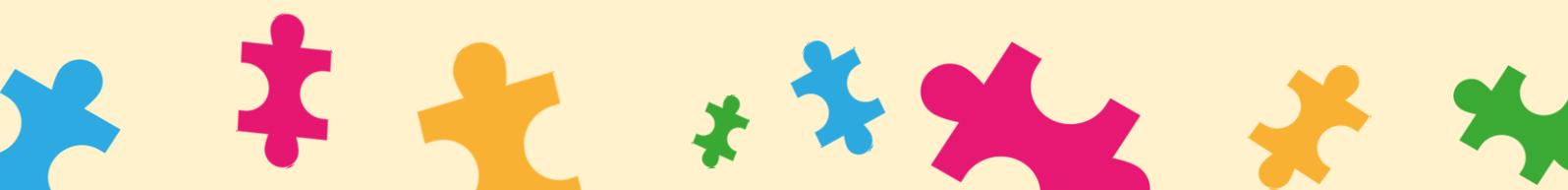
My Weekly Goals:	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>	<u>Sunday</u>
1. <i>Recycle all materials where possible (paper, plastic, glass & cans).</i>							
2. <i>Unplug electronics when they are not in use.</i>							
3.							
4.							
5.							

It takes 28 days to form new habits, so by completing your carbon budget planner for one whole month, you could make these changes a normality in your everyday lifestyle!



By following your *Carbon Budget Planner*, you too can look at different ways that you can save the planet! And why not create your own planner at home with different eco-suggestions?

Now you know all about carbon emissions and why it is important for us all to calculate our carbon footprint and look at ways of reducing it, why not encourage your teacher, friends, and family to make changes too? This way we can all work towards doing more for the environment and help to stop global warming! Well done!





EVALUATION

As a self-assessment for this WebQuest, write a short self-reflection of 100 words to explain how you enjoyed this activity. Answer the following questions to help:

- What did you learn from this activity? Can you mention three things that you liked about it?
- Can you explain why it is important to reduce our carbon footprint?
- Can you explain why it is important to raise carbon footprint awareness with your peers?
- What do you think is the most important thing you learned today that you could tell your friend or family member?

Also, why not try and test your knowledge with the following questions to see how much you learned today:

<https://forms.gle/znwJ5kd9TPirNnsR7>

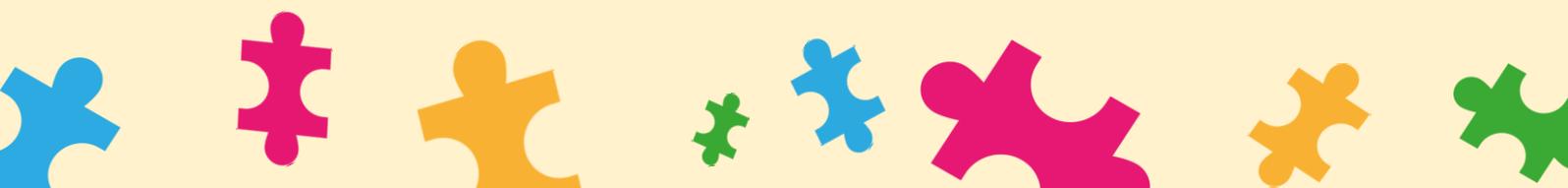
CONCLUSION

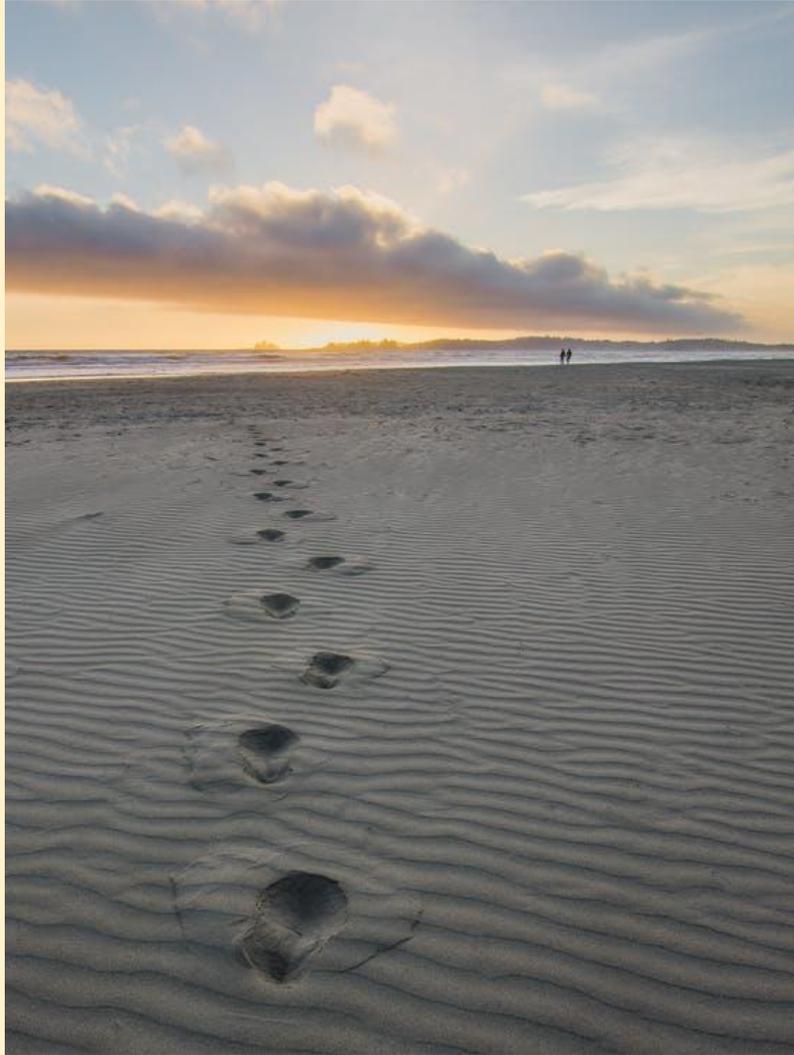


Congratulations! You and your team successfully completed your *Carbon Budget* and can now make a difference by reducing your carbon footprints! Not only are you making a change, but you are also an inspiration to others too. By encouraging people to make a difference and protect our planet, we can all realise our responsibility to the environment.

Being green does not mean that we must change everything about the way we live, instead it means making wiser choices that help the environment instead of damaging it. This means that we can understand, plan, and implement new daily habits that are good for the environment! Breathing cleaner air, having greener plants and healthier people, plants, and animals. What's stopping you?

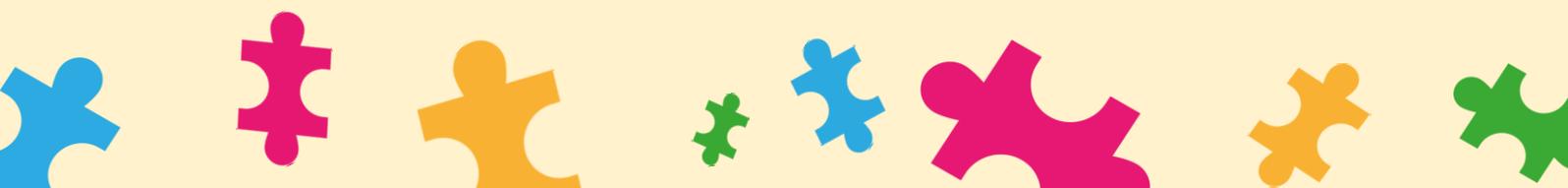
By completing this WebQuest, you have learned all about your carbon footprint, how it can damage the planet, and discovered ways to combat climate change! It is important for us all to recognise how we can protect all living things on planet Earth! Well done!





“Make a big impact by making little impact”

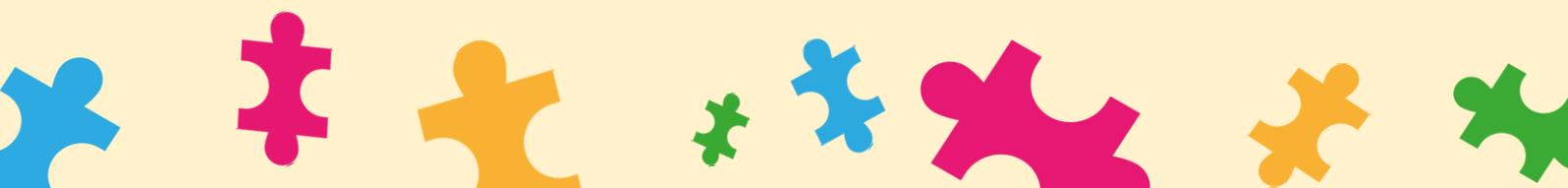
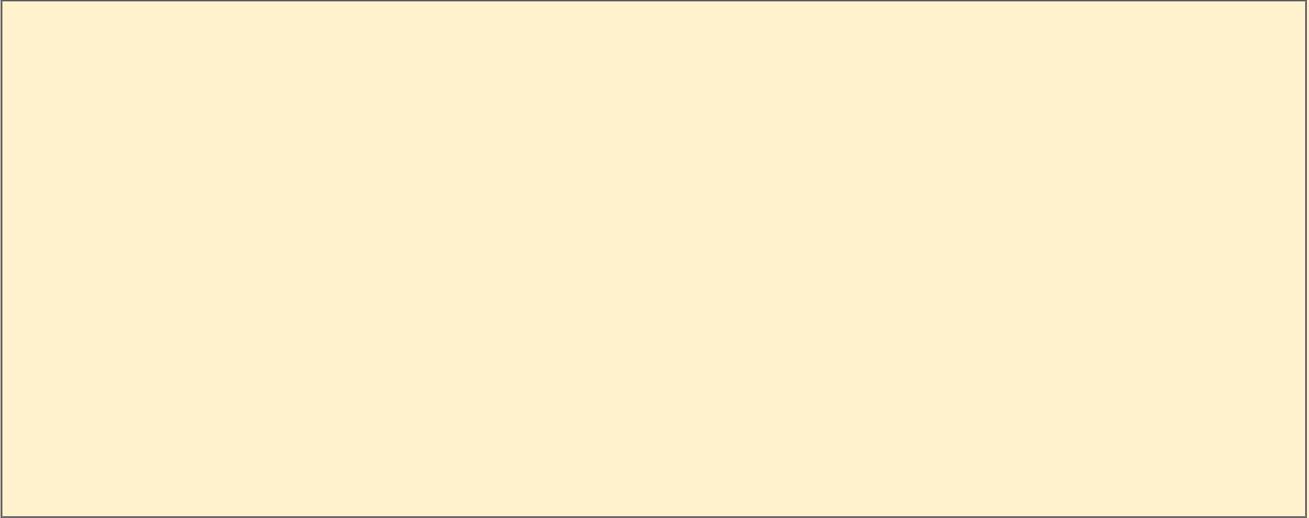
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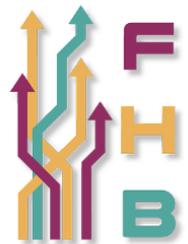


GRETA

Challenge-based Learning in Primary Schools for Climate Change Awareness



Istituto Comprensivo "Don Milani" di Lanciano



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