

GLU 2.1 Let's learn about our carbon footprint!

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COUNTRY	Malta
AGE GROUP	7 - 9 years
SUBJECTS	science literacy
DURATION	2 lessons (45 minutes each)
TOPICS	<ul style="list-style-type: none"> ▪ Sustainable use of resources ▪ Carbon footprint
SDGs	SDG 12: Sustainable consumption and production SDG 13: Climate action

Competences required

- Communication skills
- Numerical skills and basic competences in science and technology
- Learning to learn

Learning objectives

- To understand what a carbon footprint is and how it is created.
- To learn how to reduce our carbon footprint.

Materials and equipment

- Interactive whiteboard or PC/laptop, projector and speakers
- A1 paper
- Newspapers or magazines
- Tape
- Scissors

Teaching tools

- Video clips: *Carbon Footprints | Save Our World*
- Carbon footprint stickers
- Carbon footprint fact sheet
- Quiz
- 'Go Green' action cards – a card-matching game (to print number of copies depending on the size of groups you will be setting up in the class and then cut out)
- 'Green Foot' handout (to print number of copies according to the number of students in the class).



Questions to discuss

- What does the term 'carbon footprint' mean?
- What causes this footprint?
- What could you do to decrease your own carbon footprint?
- What could we do as a class to decrease our carbon footprint?
- What could we do as a school to decrease our carbon footprint?
- Why is our carbon footprint (i.e. of children in Malta) larger than that of children who are living in less developed countries?

Suggested evaluation tools

- **Class discussion:** What is the most interesting thing you have learnt about the carbon footprint today?
- **Homework:** Create a poster aimed at the students' families, using computer, collage, paints or other, informing them about the carbon footprint and what they can do to keep it small. Ask the students to bring the poster to school and also report on the families' reactions.
- **Homework:** Think of one concrete action you can do to decrease your own carbon footprint. Then implement it for one week. After that week, write an essay about your experience.

GLU 2.1 Lesson plans

GLU 2.1 Lesson Plan 1 (45 minutes)

Materials and equipment

- Interactive whiteboard or PC/laptop, projector and speakers
- A1 paper
- Tape

Teaching tools

- Video clips: *Carbon Footprints | Save Our World*
- Carbon footprint stickers
- Carbon footprint fact sheet
- Quiz
- Carbon footprint fact sheet

Questions to discuss

- What is a carbon footprint?
- What causes this footprint?

Suggested evaluation tools

- **Class discussion:** What is the most interesting thing you have learnt about the carbon footprint today?



- **Homework:** Create a poster aimed at the students' families, using computer, collage, paints or other, informing them about the carbon footprint and what they can do to keep it small. Ask the students to bring the poster to school and also report on the families' reactions.

Activities

NOTE: Prior to the lesson print out the carbon footprint stickers and attach them to some of the objects in your classroom that are powered by electricity.

Time	Activity description	Additional tips
20 minutes	<p>Open the lesson with this question: What, do you think, are all these footprints around the class? Ask a pupil to go and fetch one of the footprints stickers and to read out what it says ('carbon footprint').</p> <p>Then ask the children: Does anyone know what 'carbon footprint' means, and what makes the footprint? After listening to the children's answers, show them the <i>Carbon Footprints</i> video clip to explain that our carbon footprint is the amount of carbon dioxide (or CO₂) generated by the things we use. CO₂ emissions might come from day-to-day sources, such as driving a car, or from large scale emissions, such as forest fires. Discuss the video and elicit from the children what creates a carbon footprint. Write the children's answers on the board. Explain that our carbon footprints add to global warming.</p> <p>Then, write the following question on the board: How could we reduce our carbon footprint? This will encourage the children to think of ways how to reduce emissions. Write the children's suggestions on the board and then show them the <i>Save Our World</i> video clip. This video explains what we could do to reduce emissions. Refer to the children's suggestions that were written on the board, if any of them are mentioned in the clip.</p>	
15 minutes	<p>After the video, ask the children: Where else around the classroom or school could we put a carbon footprint sticker? Allow a few children to stick these footprints accordingly. Ask the children to think about a day in their lives and what activities they usually do that increase their carbon footprint.</p>	<p>If possible, you could also extend this part of the lesson to outside the classroom, but identifying items around the school.</p>



	Give them a sticky note or a small paper and ask them to write some of their activities. Then, draw an outline of a footprint on a board or an A1 paper and ask them to read what they have written to their classmates and to stick the small paper on the footprint.	
10 minutes	Conclude the lesson with a quiz about the carbon footprint, and distribute the 'carbon footprint fact sheet' handout to provide the pupils with further information about the topic.	
Extension or homework activities	Explain to the children that the carbon footprint varies significantly around the world, from one country to another. Encourage them to do more research about this issue. They should present their research as a slideshow, poster, booklet or display to be presented to the rest of the class.	

GLU 2.1 Lesson Plan 2 (45 minutes)

Materials and equipment

- Newspapers or magazines
- Tape
- Scissors

Teaching tools

- 'Go Green' action cards, a card-matching game – to print number of copies depending on the size of groups you will be setting up in the class and then cut out)
- 'Green Foot' handout - to print number of copies according to the number of students in the class).

Questions to discuss

- What could you do to decrease your own carbon footprint?
- What could we do as a class to decrease our carbon footprint?
- What could we do as a school to decrease our carbon footprint?
- Why is our carbon footprint (i.e. of children in Malta) bigger than that of children who are living in less developed countries?

Suggested evaluation tools

- **Class discussion:** What is the most interesting thing you have learnt about the carbon footprint today?
- **Homework:** Think of one concrete action you could do to decrease your own carbon footprint. Then implement it for one week. After that week, write an essay about your experience.



Activities

Time	Activity description	Additional tips
10 minutes	Start the lesson by explaining to the students that children in less developed countries have a smaller carbon footprint than that of children in Malta. Discuss with the students the reasons for this (e.g. level and type of consumption, use of car) and encourage them to come up with suggestions of reducing their own footprint without having to stop using modern technology. Emphasise that there are many things we could all do to help protect the environment and reduce our carbon footprint and that, by working together, we could make a big difference. Write down the pupils' suggestions on the whiteboard.	
15 minutes	Organise the class into groups and distribute one set of the 'Go Green' action cards to each group. In playing this matching game, the children will learn about specific ways how to reduce their carbon footprint.	Learners could identify cards that can be related to classroom life. A copy of these could then be distributed to all the classes, to be hung in a prominent spot and followed on a daily basis for school action.
20 minutes	Ask the children to think of some concrete actions they would like to carry out to reduce their carbon footprint. Distribute the 'Green Foot' handout and ask the children to write down their intended actions in the handout. Use the paper feet (instead of leaves) to make a display of a tree, and call it the "Go Green and Join the Team Tree" . The trunk could be made out of newspapers or magazines. The tree could be displayed on the school board to demonstrate how small actions among individuals could make a big difference for our environment. Let the pupils prepare a joint presentation to promote the initiative to the whole school. Every child should be given the opportunity to talk for a few seconds at least – the teacher could assess pupils individually on their public-speaking skills.	The writing strategy to be used could take the form of a numbered list, wherein the sentences start as a command. The teacher could then assess students individually on the competence of writing a list.

