



"What is Your Carbon Footprint?" September 2024 Lesson Plan -Elementary

Objective:

Students will learn what a carbon footprint is, how it impacts the environment, and ways they can reduce their carbon footprint.

Time:

1 hour 20 minutes + optional extension activities

Materials Needed:

- Computer/Projector for video
- Jar with lid and small candle
- Chart paper and markers
- **How Can I Reduce My Carbon Footprint** worksheet
- **Carbon Footprint Green Pledge** Worksheet
- Books (recommendations listed in plan)
- Internet access (optional for extension activities)

Vocabulary:

- **Carbon Footprint**
 - **Fossil Fuel**
 - **Greenhouse Gas**
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Introduction (15 minutes)

1. Captivating Intro:

- **Video:** Show a short, engaging video on carbon footprints such as "[Planet Aid Scholar's Club - How to Lower Your Carbon Footprint](#)," "[Carbon Footprint](#)" by Mocomi Kids or "[What is a Carbon Footprint?](#)" by TED-Ed.
- **Thinking Activity:** After the video, ask students to think about what they do in a day and how it might create carbon dioxide (CO₂).

2. Demonstration:

- Use a clear jar, a small candle, and a lid to demonstrate how burning fossil fuels (like the candle) produces CO₂ (putting the lid on the jar will eventually extinguish the candle, showing the buildup of CO₂).
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Lesson (20 minutes)

1. Explanation:

- Define carbon footprint: "A carbon footprint is the total amount of greenhouse gasses (including CO₂) that are generated by our actions."
- Discuss sources of carbon footprints: transportation (cars, buses), energy use at home (electricity, heating), and food consumption (production and transport of food).

2. Visual Aid:

- Use a chart to list common activities and their carbon footprints (e.g., driving a car vs. walking, eating meat vs. vegetables).
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Group Activity (20 minutes)

1. Carbon Footprint Stations:

- Divide students into small groups.
 - Set up stations around the room with different activities listed (e.g., riding a bike, using a computer, eating a hamburger).
 - Each group will go to a station, read the activity, and discuss how it affects the carbon footprint.
 - Get into groups, then create a small poster (for grade levels that are able) for each activity showing its impact and one way to reduce it. Younger children can simply share with the class their thoughts or draw a picture depicting a way to reduce the carbon footprint for one of the activities.
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Individual Activity (15 minutes)

1. Carbon Footprint & Renewable Energy Worksheets:

- Hand out the "**How Can I Reduce My Carbon Footprint?**" worksheet. Do one or two examples as a class. For example: Watching TV and using screens (which uses energy) can be replaced with activities like reading, coloring, or riding your bike.

Extension Activities

1. At-Home Activities:

- **Energy Audit:** Students can work with their parents to check how much energy they use at home and find ways to save energy (e.g., turning off lights, using more sustainable sources of energy, unplugging devices).
- **Walking Challenge:** Encourage students to walk or bike instead of using the car for short trips.
- **Waste-Free Lunch:** Challenge students to bring a waste-free lunch to school for a week (using reusable containers, cloth napkins, etc.).

2. Books to Read:

- “The Lorax” by Dr. Seuss
 - “Why Should I Save Energy?” by Jen Green
 - “George Saves the World by Lunchtime” by Jo Readman
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Closing Activity/Statement (10 minutes)

1. Reflection and Sharing:

- Have students share one thing they learned and one thing they will do to reduce their carbon footprint.
- **Closing Statement:** “Remember, every small step you take to reduce your carbon footprint helps make our world a better place for everyone. Keep thinking of new ways to be eco-friendly and encourage your family and friends to join you!”

2. Pledge:

- As a class, create a “Green Pledge” where each student commits to one action to reduce their carbon footprint. Students may write their individual pledges on the **Carbon Footprint Green Pledge** worksheet and then hang them up together on a board.

By the end of this lesson, students will have a better understanding of their carbon footprint and practical ways to reduce it, fostering a sense of environmental responsibility.