

Grade 1 Curriculum: Exploring Carbon in Our World

Unit 1: Introduction to Carbon (4 weeks)

Week 1: What is Carbon?

- Define carbon and introduce its basic properties.
- Explore where carbon can be found in everyday objects (e.g., pencils, food, plants).
- Conduct simple experiments to observe carbon in action.

Week 2: Carbon in the Natural World

- Discuss the carbon cycle and its role in nature.
- Explore how plants use carbon dioxide for photosynthesis.
- Hands-on activities such as planting seeds and observing plant growth.

Week 3: Carbon in the Air and Atmosphere

- Learn about carbon dioxide in the air and its importance.
- Explore basic concepts of air pollution and its impact on carbon balance.
- Craft activities: creating simple models of the Earth's atmosphere.

Week 4: Carbon in Our Bodies

- Understand how carbon is an essential component of living organisms.
- Discuss the connection between carbon, food, and energy in the body.
- Health-related activities: focus on balanced nutrition and food choices.

Unit 2: Human Activities and Carbon (4 weeks)

Week 5: Human Activities and Carbon Emissions

- Introduce the concept of human activities that release carbon into the atmosphere (e.g., burning fossil fuels).
- Discuss the impact of these activities on the environment.
- Engage in discussions on responsible actions.

Week 6: Reduce, Reuse, Recycle

- Teach the importance of reducing carbon footprints through responsible consumption.
- Explore the concept of recycling to minimise waste and carbon emissions.
- Create art projects using recycled materials.

Week 7: Trees and Carbon Capture

- Understand the role of trees in absorbing carbon dioxide.
- Discuss the importance of forests for a balanced carbon cycle.
- Planting activity: students participate in tree planting or caring for a class garden.

Week 8: Animals and Carbon Connections

- Explore how animals contribute to the carbon cycle.
- Discuss the concept of biodiversity and its importance for carbon balance.
- Virtual or in-person visit to a local zoo or nature reserve.

Unit 3: Carbon Conservation (4 weeks)

Week 9: Conservation and Carbon Reduction

- Discuss the concept of conservation and its role in carbon reduction.
- Explore simple actions children can take to conserve resources.
- Create a class "Carbon Conservation Pledge."

Week 10: Renewable Energy Sources

- Introduce basic concepts of renewable energy sources.
- Discuss how renewable energy can help reduce carbon emissions.
- Engage in simple energy-related experiments.

Week 11: Our Responsibility as Stewards of Carbon

- Summarise key learning's about carbon in our world.
- Discuss the importance of being responsible stewards of the environment.
- Encourage students to share what they have learned with their families.

Week 12: Culminating Activity

- Project-based learning: Students create a poster, story, or presentation showcasing what they've learned about carbon and its connection to humanity and the natural world.
- Class celebration: Share projects with parents and the school community.

This curriculum is designed to be interactive, hands-on, and age-appropriate, providing a foundation for understanding the importance of carbon within our world and the role children can play in environmental conservation.

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