

Innovative Solutions Hackathon: Reducing Plastic Waste in Communities (description)

This 4-hour workshop is also part of the Problem Solving Challenge series in the STEAM category of Science, with a focus on Reducing Plastic Waste in Communities. The workshop aims to engage participants in tackling the pressing issue of plastic pollution, using case studies from The Guardian and BBC articles. Participants will form teams to brainstorm, research, and develop innovative solutions aimed at reducing plastic waste in communities. These solutions could range from promoting the use of biodegradable materials to creating awareness-raising tools and apps. Teams will present their finalized solutions for peer and instructor feedback. The workshop concludes with a reflective discussion on the real-world applicability of the solutions developed. All materials and guidelines are digitally accessible to participants.



By the end of this workshop, participants will have gained a comprehensive understanding of the challenges and solutions related to plastic waste. They will have engaged in collaborative problem-solving, research, and critical thinking, culminating in the presentation of innovative solutions.

Description of Activity:

1. Introduction and Scenario Overview: 30 minutes

- Introduce the issue of plastic waste and its environmental impact.
- Present the scenario using articles from The Guardian and BBC as case studies, accessible via digital link.
- Discuss the challenges and consequences of plastic pollution.

Plastic pollution is a major environmental issue that harms ecosystems and human health (see related articles by [The Guardian](#), or the [BBC News](#), or [CNN Business](#)). Participants can accept the challenge of eliminating plastic trash in their neighbourhoods. Teams could come up with innovative ways to encourage the use of biodegradable materials, promote recycling and upcycling, or create tools and apps to increase awareness about plastic waste and urge responsible disposal.

2. Team Formation and Brainstorming: 30 minutes

- Form teams and provide digital access to the scenario and guidelines.
- Teams brainstorm and research innovative solutions for reducing plastic waste.

3. Research and Planning: 45 minutes

- Teams conduct research on biodegradable materials, recycling, and upcycling.
- Develop a preliminary plan for their plastic waste reduction system.

4. Solution Development: 45 minutes

- Teams finalize their solutions, focusing on practicality and impact.

5. Mock Presentations and Peer Review: 30 minutes

- Teams present their solutions to each other for peer review.
- Incorporate feedback for final presentation.

6. Final Presentations and Feedback: 30 minutes

- Teams present their finalized solutions.
- Peer and instructor feedback.

7. Conclusion and Reflection: 30 minutes

- Summarize key takeaways.
- Open floor for participants to share what they've learned and how these solutions could be implemented in real-world scenarios.

STEAM Category:

- Science

Image: www.pexels.com