

Lesson Plan 2

Target Audience

Vet Trainers

Goal (50-60 words)

The goal of this lesson plan is to get learners acquainted with the three main strategies to reduce plastic waste. To achieve this, learners will evaluate effectiveness of strategies both on a personal level and through a workplace perspective.

Objectives (1-3 Objectives)

- Demonstrate methods for reducing plastic waste in personal and professional contexts, such as waste minimization and recycling strategies
- Assess the effectiveness of different plastic reduction strategies, such as reduce, reuse, recycle and zero-waste strategies
- Analyze sustainability strategies and identify benefits of plastic waste reduction in large commercial businesses

Optional Theoretical Background (200-400 words)

Zero waste: “The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.”(Zero Waste International Alliance, 2018)

3Rs [Reduce, Reuse, Recycle]: Reduce: Reducing the amount of material we purchase and consume,

Reuse: Once we have the material, try to reuse it as many times as possible and Recycle: Recycle material through organized collection

Circular Economy: “The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.” (European Parliament, 2024)

Lesson Plan Details

Lesson Plan title	Alternative solutions to plastic waste in personal and professional settings
21st Century Skills	<ul style="list-style-type: none"> ● Collaboration ● Communication ● Creativity ● Critical Thinking ● Problem-solving ● Decision making
Duration	Activity 1: 30 Minutes Activity 2: 20 Minutes Activity 3: 30 Minutes Scenario 1: 20 Minutes
Classroom setting	<ul style="list-style-type: none"> ● in groups (Activity 1 & Scenario 1) ● individually (Activity 2) ● In pairs (Activity 2 & 3)
Required material/resources	Activity 1 & 2: <ul style="list-style-type: none"> ● Handout ● Pens/Markers Scenario 1: <ul style="list-style-type: none"> ● Handout with scenario OR ● Screen/Projector & Laptop Activity 3: <ul style="list-style-type: none"> ● Internet Access via smart phone or laptop
Prerequisites	Materials from LP1

Final Assessment (if applicable)	<p>Essay Form:</p> <p>Explain why the reduce strategy is the most effective and preferred strategy in comparison to reuse and recycle.</p>
Additional resources	<p>The 6Rs: https://practicalaction.org/learning/waste/the-6-rs/</p> <p>Waitrose Sustainability Plan: https://www.waitrose.com/ecom/content/sustainability/plastic-reduction</p>
References	<p>Charles, D., & Kimman, L. (2023). <i>Plastic Waste Makers Index 2023</i>. Minderoo Foundation.</p> <p>Ellen MacArthur Foundation. (2021). <i>The new plastics economy: Rethinking the future of plastics & catalysing action</i>. Ellen MacArthur Foundation.</p> <p>European Environment Agency. (2023). <i>Waste prevention and circular economy</i>. https://www.eea.europa.eu/en/newsroom/news/circular-economy-target-monitoring-waste-prevention</p> <p>European Parliament. (2015). <i>Circular economy: Definition, importance, and benefits</i>. https://www.europarl.europa.eu/topics/en/article/20151201STO05603/circular-economy-definition-importance-and-benefits</p> <p>United Nations Environment Programme. (2022). <i>Guide to reducing plastic waste in schools</i>.</p> <p>United Nations Environment Programme. (n.d.). <i>Beat plastic pollution</i>. Retrieved September 25, 2024, from https://www.unep.org/interactives/beat-plastic-pollution/</p> <p>U.S. Environmental Protection Agency. (n.d.). <i>What you can do to reduce plastic waste</i>. Retrieved September 25, 2024, from https://www.epa.gov/plastics/what-you-can-do-reduce-plastic-waste</p> <p>World Wildlife Fund. (n.d.). <i>Top tips to reduce your plastic footprint</i>. Retrieved September 25, 2024, from https://www.wwf.org.uk/updates/top-tips-reduce-your-plastic-footprint</p>

Lesson Plan for Activities & Scenarios #1 (include 1-3 activities & 1-2 scenarios)

Activity 1 : Ranking the Effectiveness of Reduce, Reuse, Recycle Strategies

Overview:

This activity encourages learners to critically evaluate and rank the effectiveness of three key waste

management strategies as they relate to plastic: Reduce, Reuse, Recycle. Working in groups, learners will examine real-world examples of these strategies on both personal and professional levels, discuss the pros and cons of each, and present their reasoning behind the rankings.

Duration: 30 minutes

Instructions:

Step 1: Introduce Activity

Explain that learners will work in groups to discuss the advantages and disadvantages of each strategy (Reuse, Recycle, Reduce) and rank them based on their perceived impact on reducing plastic waste. Pass out Handout 1 to group.

Step 2: Group work:

Divide learners into groups of 3-4. If possible, ensure each group has a mix of perspectives and experiences.

Task: Each group should discuss the pros and cons of each strategy, considering factors like long-term environmental impact, ease of implementation, cost, and behavior change.

Groups will then rank the three strategies from most to least effective in addressing plastic waste and add examples for both the personal and professional.

Step 3: Share Out and Discussion

Invite each group to present their ranking and reasoning.

Reflection:

Facilitate a class-wide reflection by asking the following:

- Which strategy did most groups rank as the most effective, and why?
- How do personal and professional examples differ in terms of challenges and solutions?
- What surprised you about the discussions and rankings?

Optional Step 4: Share this hierarchy figure to learners depicting the effectiveness ranking of waste reduction strategies.

Figure 1: The waste hierarchy



Tips for Facilitators:

Use the following examples for reference

Strategy	Personal	Workplace
1.Reduce	Avoiding single-use plastics, buying products with less packaging, reducing consumption habits.	Implementing bulk purchasing to reduce packaging waste, cutting down unnecessary plastic in product manufacturing.
2.Reuse	Using reusable bags, containers, and water bottles.	Encouraging reusable packaging in supply chains, reusing office supplies, or refurbishing old equipment.
3.Recycle	Sorting plastic waste for recycling, using recycled plastic products.	Implementing a corporate recycling program, designing products with recycled materials, or ensuring proper recycling of industrial waste.

Activity 2: Personal Reduction Strategies

Overview: This activity encourages learners to reflect on their personal strategies for reducing plastic waste. By evaluating the likelihood of implementing various reduction strategies, learners will confront the difficulties of reducing plastic waste and the significance of individual responsibility in combating plastic pollution.

Duration: 20 minutes

Instructions:

Step 1: Introduce activity

Explain that learners will work individually and then in pairs in completing a handout in which they will assess the likelihood of strategy implementation of reduction strategies in their personal lives.

Step 2: Handout

Distribute the handout and explain the ranking is a 1-3 scale 1 being low likelihood and 3 high likelihood. The ranking is on how likely they were to implement each strategy. Encourage honesty without judgment.

Step 3: Pair and Share

Once learners have completed handout, ask them to pair up. In pairs, learners should discuss their answers. Some prompts:

What strategies have you tried before? How do personal circumstances affect the ability to reduce plastic?

Step 4: Big group share

Invite three or four learners to share their ratings and reflections within the larger group.

Reflection:

Pose the following question to the group: "Is individual responsibility enough?" Let the big group share by taking turns. If necessary, share some of the research on the production of plastic waste. Invite the learners to discuss the role of systemic changes VS personal responsibility.

Scenario 1: Supermarket waste

Duration: 20 minutes

Instructions:

Step 1: Present the scenario and choices to learners.

Step 2: Ask learners to get into groups and analyze the choices available to them. For each choice, ask learners to consider:

- a) Why is this the best option?
- b) Why might this not be the best option?

Invite them to select their preferred choice and name at least 3 real-world constraints they might face (e.g., costs, customer behavior, supply chain).

Step 3: Each group should share their choice and reasoning with the large group.

Step 4: As a big group, analyze the feedback and explore possible hybrid or compromise solutions.

Scenario:

You are the general manager for a large supermarket chain, and you are passionate about reducing

plastic waste. However, the issue is more complex than it seems. While the supermarket relies heavily on plastic bags, food packaging, and ready-made meal containers, alternatives are often more expensive and could disrupt operations. You also worry about how customers and suppliers might react. You must balance the cost of change, customer convenience, and environmental impact. While you want to make a meaningful change, you are unsure how to begin without affecting profits or customer satisfaction.

Choices:

1) Introduce a Hybrid Packaging Solution:

Rather than eliminating plastic entirely, you decide to work with suppliers to phase in more sustainable packaging options gradually. For high-volume items like fruits and vegetables, you offer customers the option to choose between traditional plastic or compostable packaging, gauging customer response before committing to a full switch. This allows for flexibility while assessing the costs of alternative packaging.

2) Launch a Reusable Bag & Refill Station Program:

You initiate a "Bring Your Own Bag" campaign, offering incentives like discounts or loyalty points for customers who bring reusable bags. At the same time, you introduce refill stations for common household goods such as detergents, grains, and snacks. This cuts down on plastic packaging and gives customers the freedom to bring their own containers. Although it requires an upfront investment, it allows for gradual change without completely overhauling the packaging system.

3) Collaborate with Local Producers and Environmental Groups:

You partner with local suppliers to test pilot programs using more sustainable packaging for specialty or premium products. At the same time, you collaborate with environmental groups to host community "Plastic-Free Days" where customers are encouraged to shop plastic-free. These events help raise awareness and demonstrate the store's commitment to reducing plastic waste. The initiative also allows you to explore the feasibility of longer-term changes without incurring significant costs immediately.

Feedback:

Feedback for Choice 1:

Thoughtful, balanced choice. This strategy offers a practical middle ground by introducing compostable packaging without overwhelming the system. It allows you to test customer interest and evaluate costs before committing to a full switch. However, this approach still relies on plastic in the short term, and customer buy-in might vary based on pricing differences.

Feedback for Choice 2:

Excellent choice. Encouraging the use of reusable bags and introducing refill stations is a proactive way to cut down on plastic waste. While refill stations require some initial investment and may require customer education, this option directly reduces single-use plastic. However, managing hygiene and waste regulations, as well as customer habits, might pose challenges.

Feedback for Choice 3:

A strong, community-driven choice. Collaborating with local suppliers and hosting Plastic-Free Days raises awareness and demonstrates your supermarket's commitment to reducing waste. It offers a way to engage customers and suppliers in the process without large upfront costs. However, it might be viewed as more of a symbolic gesture unless combined with long-term internal changes to packaging and waste management systems.

Activity 3: Case Study "Waitrose"

Duration: 30 minutes

Overview:

In this activity, learners will review Waitrose supermarket chain's progress in reducing plastic waste through its sustainable practices. They will examine the approaches Waitrose has taken in three key areas: packaging, containers, and bags. Learners will discuss the benefits these practices provide, both in terms of environmental impact and financial or social gains for the supermarket. The activity encourages critical thinking about corporate responsibility and sustainability.

Duration: 20-25 minutes

Instructions:

Step 1: Introduce Activity

Explain that learners will review Waitrose's approach to sustainability and then work in pairs to discuss the case study's insights. Learners will evaluate the supermarket's efforts in three areas: packaging, containers, and bags, and identify the broader benefits these strategies bring beyond just plastic reduction.

Step 2: Review the Case Study:

Provide learners with a link to the [website of Waitrose's](#) progress on reducing plastic, highlighting key initiatives related to packaging, containers and reusable bags.

Step 3: Pair and Share

In pairs, learners should discuss the following prompts:

- What approach did Waitrose take for their efforts in terms of a) Packaging?, b) Containers?, c) Bags?
- What are the social and financial benefits for Waitrose beyond the direct impact of reducing plastic waste? (Consider customer loyalty, brand reputation, cost savings, or community engagement.)

Encourage learners to think critically about how Waitrose's approach balances sustainability with business considerations.

Step 4: Share out:

Invite 3-4 pairs to share their discussion and findings with the larger group.

Reflection:

Invite learners to reflect on the importance of sustainable practices in large companies and how these strategies can serve as models for other businesses. Ask learners to consider whether such initiatives could be easily adopted by other companies and what challenges they might face in doing so.

Tips for Facilitators:

Encourage learners to think beyond the environmental benefits and explore how companies like Waitrose can use sustainability to improve their public image, customer satisfaction, and profitability.

Activity 1:



Rank **Reuse**, **Recycle**, **Reduce** strategies for waste reduction in order of *effectiveness*.

Use examples for both personal and workplace strategies.

	<i>Personal Strategies</i>	<i>Workplace Strategies</i>
1.		
2.		
3.		

Activity 2

PERSONAL PLASTIC WASTE REDUCTION



	Strategies	Likelihood of implementing 1-3 (1 low, 3 high)
	Bring reusable bags to the supermarket	
	Bring reusable produce bags to the supermarket	
	Avoid groceries with unnecessary plastic (e.g., carrots in plastic bags)	
	Go to the farmers market	
	Choose clothing made from natural fibers (avoid fabrics made out of plastic Polyester, Acrylic, Nylon)	
	Bring a reusable coffee container when buying coffee	
	Carry a reusable water bottle	
	Reuse glass jars instead of purchasing plastic containers	
	Replace toothbrush with bamboo toothbrush	
	Avoid purchasing plastic food containers (prioritize glass or metal)	
	Bring my own takeout container when getting takeout	
	Decline straws/ Bring your own straw	