

LP3: Engaging with practical implementation and activities for sustainable waste management in textile industry

Target Audience

Vet Trainers

Goal (50-60 words)

The goal of this lesson plan is to equip VET trainees with hands-on experience and practical skills in sustainable waste management through engaging activities and real-world implementation strategies. VET trainers will gain effective teaching methods to engage students in sustainability practices, enabling trainees to develop actionable waste management solutions, fostering environmental responsibility, and enhancing employability in green industries.

Objectives (1-3 Objectives)

1. Apply sustainable waste management practices in real-world scenarios: Trainees will gain hands-on experience in implementing effective waste management strategies to reduce environmental impact.
2. Develop and evaluate action plans for waste reduction: Trainees will learn to create and assess waste reduction strategies, fostering environmental responsibility and sustainability within their institutions and future careers.

Lesson Plan Details

Lesson Plan title	Engaging with practical implementation and activities for sustainable waste management.
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21st Century Skills	<ul style="list-style-type: none"> ● Collaboration ● Communication ● Creativity ● Critical Thinking ● Problem-solving ● Decision making
Duration	<p>Total duration: 200-250 minutes</p> <p>Activities breakdown:</p> <ul style="list-style-type: none"> ● Introduction and Objectives Setting: 10 minutes: Briefly introduce the lesson's goals and objectives. ● Activity 1: Transforming Old Fabrics into Patchwork: 60-75 minutes: Repurpose old fabrics that might otherwise be discarded, creating a beautiful patchwork piece that is going to act as a “new fabric”, as a raw material. ● Activity 2: Crafting with New Fabric: 60-75 minutes: The aim of this activity is to explore creative ways to use the patchwork fabric you created in Activity 1, encouraging resourcefulness and craftsmanship. ● Activity 3: Natural Dyeing Workshop: 60-75 minutes: The aim of this activity is to learn about sustainable and eco-friendly methods of dyeing fabric, promoting environmental consciousness. <p>Useful links: https://kathryndavey.com/avocado-dye/, https://shorturl.at/UsaV2, https://kathryndavey.com/how-to-dye-with-onion-skins/</p> <ul style="list-style-type: none"> ● Conclusion/Q&A/Evaluation: 10-15 minutes: Summarise key points, and lessons learned from the activities and answer any remaining questions.
Classroom setting	Work either in groups or individually, to ensure all participants feel comfortable.
Required material/ resources	<ul style="list-style-type: none"> ● Activity 1: Transforming Old Fabrics into Patchwork <ul style="list-style-type: none"> -Old fabrics (various types and sizes), participants can contribute to this with clothes they do not want any longer -Scissors -Measuring tape -Sewing machine or needle and thread -Fabric glue (optional, for attaching patches securely) ● Activity 2: Crafting with New Fabric <ul style="list-style-type: none"> -New fabric (previous activity's raw material/"new fabric") -Scissors -Sewing machine or needle and thread -Optional: Buttons, Elastic, Stuffing ● Activity 3: Natural Dyeing Workshop Handout

	<ul style="list-style-type: none"> -Natural dyes (e.g., avocado pits, onion skins, coffee grounds) -Fabric (preferably 100% cotton, wool, or silk for best dye absorption) -Boiling (distilled) water -White distilled vinegar (optional but recommended for fixing the dye) -Rubber bands or ties (optional, for creating designs) -Iron (optional, for setting the dye) -Cheesecloth (for straining the dye mixture) -Large bowls or jars -Gloves -Safety goggles -Cooker or kettle -Casserole
Prerequisites	Knowledge from LP1 and LP2.
Final Assessment (if applicable)	There won't be a final assessment for this Lesson Plan.
Additional resources	<p>Check OERs Annex.</p> <p>https://kathryndavey.com/avocado-dye/, https://shorturl.at/UsaV2, https://kathryndavey.com/how-to-dye-with-onion-skins/</p>
References	<p>Davey, K. (n.d.). How To Naturally Dye With Onion Skins Kathryn Davey Blogspot, retrieved from: https://kathryndavey.com/how-to-dye-with-onion-skins/</p> <p>Davey, K. (n.d.). Natural dyeing with avocado: Stones + skins. Kathryn Davey Blogspot, retrieved from https://kathryndavey.com/avocado-dye/</p> <p>Malú Colorín (n.d.). 6 simple steps to dyeing clothes with coffee, Talu Earth Blog, retrieved from: https://taluearth.com/6-simple-steps-to-dyeing-clothes-with-coffee/#:~:text=In%20order%20to%20create%20your,hold%20all%20of%20your%20fabrics.</p> <p>Unknown Author, (2019). Elbe Textiles Blog/Tutorials, Patchwork clothing - Scrap busting 101., available at: https://elbetextiles.com.au/blogs/news/patchwork-clothing.</p>

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

Introduction and Objectives Setting: 10 minutes

Briefly introduce the activity goals and their objectives.

Activity 1: Transforming Old Fabrics into Patchwork: 60-75 minutes

This activity aims to repurpose old fabrics that might otherwise be discarded, creating a beautiful patchwork piece that is going to act as a "new fabric", as a raw material.

Steps:

- **Gather Old Fabrics:** Start by collecting old fabrics that you and your trainees have in your home, or discarded fabrics that you have in the VET centre. Remember, the goal is to save fabrics that would otherwise be thrown away.
- **Measure and Cut:** Lay out all the fabrics on a clean surface. Measure each piece to ensure you're keeping track of how much fabric you've saved. Cut the fabrics into manageable pieces, ready to be sewn together.
- **Sew the Pieces Together:** Using a sewing machine or needle and thread, start sewing the pieces of fabric together in a pattern of your choice. This could be a simple grid or a more complex design depending on your skill level and creativity.
- **Count the Saved Fabric:** After completing your patchwork, measure the total length and width of the finished piece.

Inspired by: Unknown Author, (2019). Elbe Textiles Blog/Tutorials, Patchwork clothing - Scrap busting 101., available at: <https://elbetextiles.com.au/blogs/news/patchwork-clothing>

Activity 2: Crafting with New Fabric: 60-75 minutes

The aim of this activity is to explore creative ways to use the patchwork fabric you created in Activity 1, encouraging resourcefulness and craftsmanship.

Steps:

- **Choose Your Project:** Decide what you'd like to make with your new fabric. This could be a simple pouch, a pair of scrunchies, or even a small blanket (couvert-lit). You can find ideas in our OER platform, in video form.
- **Prepare Your Materials:** Gather all necessary materials, including scissors, sewing needles, thread, and of course, the patchwork fabric you created in the previous activity. If your project requires other materials, such as elastic for scrunchies or stuffing for a pillow, make sure you have those too.
- **Cut and Sew:** Follow the instructions to cut and sew your fabric. Take your time and pay attention to detail. This is your chance to showcase your creativity and skills.
- **Finish Your Piece:** Once your project is sewn, add any final touches. This could be stitching on buttons, adding lace trim, or even embroidering designs onto your piece.
- **Show Off Your Work:** Share your creation with others. Whether it's wearing your scrunchies, using your pouch, or displaying your blanket, enjoy the satisfaction of knowing you've crafted something beautiful and useful!

Inspired by: Unknown Author, (2019). Elbe Textiles Blog/Tutorials, Patchwork clothing - Scrap busting 101., available at: <https://elbetextiles.com.au/blogs/news/patchwork-clothing>

Activity 3: Natural Dyeing Workshop: 60-75 minutes

The aim of this activity is to learn about sustainable and eco-friendly methods of dyeing fabric, promoting environmental consciousness.

Steps:

- **Research and Prepare:** Study the OER and the useful links regarding the various natural dyes and choose one or two to experiment with. Common natural dyes include avocado pits, onion skins, or coffee grounds. Prepare your fabric and the dye according to the instructions you found.
- **Safety First:** Always wear gloves and work in a well-ventilated area when handling dyes. Some natural dyes can stain skin and surfaces.

- **Dye Your Fabric:** Following the instructions for your chosen dye, soak your fabric in the dye bath. The time it takes for the fabric to absorb the colour will vary depending on the dye and the desired shade of colour.
- **Rinse and Dry:** Once the fabric has reached your desired colour, rinse it thoroughly under cold water until the water runs clear. Squeeze out excess water and lay the fabric flat to dry.

References:

Davey, K. (n.d.). Natural dyeing with avocado: Stones + skins. Kathryn Davey Blogspot, retrieved from <https://kathryndavey.com/avocado-dye/>

Malú Colorín (n.d.). 6 simple steps to dyeing clothes with coffee, Talu Earth Blog, retrieved from: <https://talu.earth/6-simple-steps-to-dyeing-clothes-with-coffee/#:~:text=In%20order%20to%20create%20your,hold%20all%20of%20your%20fabrics.>

Davey, K. (n.d.). How To Naturally Dye With Onion Skins Kathryn Davey Blogspot, retrieved from: <https://kathryndavey.com/how-to-dye-with-onion-skins/>

Conclusion/Q&A/Evaluation: 10-15 minutes

Summarise key points, and lessons learned from the activities and answer any remaining questions.

Other notes for Consortium

- If you need to incorporate any **specific Images or Videos** (outside Vimeo/YouTube), these should be referenced within the lesson plan and included in the [OERs Excel file](#).
- **Your content may or may not be altered after the Instructional Design Process.**